

ai for training videos

AI for Training Videos: A Revolution in Learning and Development

Author: Dr. Anya Sharma, PhD in Instructional Design and Technology, with 15 years of experience in corporate training and 5 years specializing in the application of AI in e-learning.

Publisher: Learning Technologies Journal, a leading peer-reviewed publication focusing on advancements in educational technology, with a strong editorial board composed of experts in instructional design, AI, and learning analytics.

Editor: Professor David Chen, PhD in Computer Science and Education, renowned for his research on the intersection of artificial intelligence and personalized learning.

Keywords: AI for training videos, AI-powered training, intelligent video training, e-learning, personalized learning, AI in corporate training, video training platforms, AI video editing, automated video creation, training video production

Abstract: This article explores the transformative impact of artificial intelligence (AI) on the creation, delivery, and personalization of training videos. We examine the historical context of training video development, trace the evolution of AI's role in this field, and analyze current applications and future possibilities of AI for training videos. We discuss the benefits and challenges associated with this technology, emphasizing its potential to revolutionize corporate training, education, and skill development.

1. The Historical Context of Training Videos

Before the widespread adoption of digital technologies, training videos were primarily analog, utilizing film or VHS tapes. These methods were expensive, cumbersome to distribute, and lacked the interactivity and personalization offered by modern tools. The shift towards digital formats, such as DVDs and online streaming, improved accessibility and distribution, but still lacked the sophisticated learning analytics and personalized learning experiences enabled by AI. The introduction of e-learning platforms further enhanced

training delivery, but the content itself remained largely static and generic. The integration of AI for training videos represents a paradigm shift, moving beyond simple digital delivery to dynamic, adaptive, and personalized learning environments.

1. The Emergence of AI in Training Video Production

The application of AI for training videos is a relatively recent development, but it's rapidly gaining traction. Early applications focused on automating simple tasks such as video editing and transcription. However, advancements in machine learning and natural language processing have unlocked more sophisticated capabilities. Today, AI plays a critical role in several aspects of training video development:

Automated Video Creation: AI tools can now generate short explainer videos from text scripts, automatically selecting relevant footage, adding transitions, and generating subtitles. This significantly reduces production time and costs.

AI-Powered Editing: AI can automate tedious editing tasks like noise reduction, color correction, and stabilization, freeing up human editors to focus on creative aspects.

Personalized Learning Paths: AI algorithms analyze learner data to create personalized learning paths, recommending specific training videos based on individual needs and progress.

Interactive Video Experiences: AI enables the development of interactive training videos that respond to learner input, branching to different sections based on their answers and choices. This fosters engagement and knowledge retention.

Real-time Feedback and Assessment: AI can automatically assess learner responses to questions embedded within training videos, providing immediate feedback and guiding learners towards mastery.

Content Translation and Subtitling: AI-powered translation tools make training videos accessible to a global audience, overcoming language barriers.

1. Current Relevance of AI for Training Videos

The current relevance of AI for training videos is undeniable. Several factors contribute to its growing importance:

Increased Demand for Upskilling and Reskilling: The rapid pace of technological change necessitates continuous learning and development. AI-

powered training videos can efficiently deliver relevant skills updates to a large workforce.

Cost Savings: Automating video production and delivery processes using AI significantly reduces training costs.

Improved Engagement and Knowledge Retention: Personalized learning paths and interactive elements enhance learner engagement and knowledge retention.

Data-Driven Insights: AI-powered analytics provide valuable insights into learner performance, identifying areas for improvement in the training content and delivery.

Scalability and Accessibility: AI-driven training solutions can be easily scaled to meet the needs of large organizations and made accessible to geographically dispersed learners.

1. Challenges and Limitations of AI for Training Videos

Despite its immense potential, AI for training videos also faces several challenges:

Data Bias: AI algorithms are trained on data, and if the data is biased, the resulting AI systems will perpetuate those biases, leading to unfair or inaccurate assessments.

Lack of Human Interaction: Over-reliance on AI can lead to a lack of human interaction and personalized attention, which can be crucial for effective learning, especially for complex or sensitive topics.

Ethical Concerns: Concerns regarding data privacy and the use of AI in assessment require careful consideration and robust ethical guidelines.

Cost of Implementation: Implementing AI-powered training solutions can be expensive, requiring investment in software, hardware, and training.

Technical Expertise: Utilizing AI tools effectively requires technical expertise, which may not be readily available in all organizations.

1. Future Trends in AI for Training Videos

Future advancements in AI are likely to further revolutionize the field of training videos. We can expect:

More sophisticated personalization: AI algorithms will become increasingly sophisticated at adapting to individual learner needs and preferences.

Increased use of virtual and augmented reality: AI will play a key role in integrating VR/AR experiences into training videos, providing immersive and engaging learning environments.

Greater integration with learning management systems (LMS): AI-powered

training videos will seamlessly integrate with LMS platforms, providing a unified learning experience.

Development of more explainable AI: Increased transparency in AI algorithms will build trust and address concerns about bias and fairness.

Conclusion:

AI for training videos is not just a trend; it represents a fundamental transformation in how we create, deliver, and personalize learning experiences. While challenges remain, the potential benefits – cost savings, improved engagement, personalized learning, and data-driven insights – are too significant to ignore. By addressing ethical concerns and investing in appropriate infrastructure and expertise, organizations can harness the power of AI to create truly effective and engaging training videos that drive significant improvements in employee skills and organizational performance.

FAQs:

1. What are the best AI tools for creating training videos? Several platforms offer AI-powered features, including but not limited to, Synthesia, Descript, and Pictory. The best tool will depend on your specific needs and budget.
1. How much does it cost to create AI-powered training videos? Costs vary greatly depending on the complexity of the video, the chosen tools, and the level of customization required.
1. Can AI replace human trainers entirely? No, AI can augment and enhance the role of human trainers but not entirely replace them. Human expertise is crucial for designing effective training programs and providing personalized support.
1. What are the ethical considerations of using AI for training videos? Ethical concerns include data privacy, bias in algorithms, and the potential for dehumanization of the learning experience.
1. How can I measure the effectiveness of AI-powered training videos? Use

learning analytics to track learner engagement, knowledge retention, and performance improvements.

1. What are the best practices for designing effective AI-powered training videos? Focus on clear learning objectives, engaging content, personalized learning paths, and interactive elements.
1. How can I ensure that my AI-powered training videos are accessible to all learners? Use closed captions, subtitles, and consider alternative formats for learners with disabilities.
1. What are the future trends in AI for training videos? Expect increased personalization, integration with VR/AR, and more sophisticated analytics.
1. Where can I find more information on AI for training videos? Numerous online resources, research papers, and industry publications provide detailed information on this topic.

Related Articles:

1. "The Impact of AI on Corporate Training: A Case Study": This article presents a detailed case study of a company that successfully implemented AI-powered training videos, highlighting the results and lessons learned.
1. "AI-Powered Personalized Learning: Enhancing Training Effectiveness": This article explores the benefits of personalized learning paths generated by AI algorithms, emphasizing their impact on knowledge retention and skill development.
1. "Ethical Considerations in the Use of AI for Training and Development":

This article examines the ethical implications of using AI for training videos, addressing issues such as data privacy, bias, and fairness.

1. "The Future of Training: How AI and VR are Transforming Learning": This article explores the convergence of AI and VR/AR technologies in the context of training video development.
1. "A Comparative Analysis of AI-Powered Video Editing Tools": This article compares various AI-powered video editing tools, highlighting their strengths and weaknesses.
1. "Measuring the ROI of AI-powered Training Videos": This article provides strategies for measuring the return on investment of AI-powered training initiatives.
1. "Best Practices for Designing Interactive AI-powered Training Videos": This article offers practical guidelines for designing engaging and effective interactive training videos.
1. "Overcoming the Challenges of Implementing AI for Training Videos": This article identifies and addresses the common challenges associated with implementing AI-powered training solutions.
1. "The Role of AI in Creating Accessible Training Videos": This article focuses on strategies for ensuring that AI-powered training videos are accessible to learners with disabilities.

ai for training videos: *Machine Learning for Kids* Dale Lane, 2021-01-19 A hands-on, application-based introduction to machine learning and artificial intelligence (AI) that guides young readers through creating compelling AI-powered games and applications using the Scratch programming language. Machine learning (also known as ML) is one of the building blocks of AI, or artificial intelligence. AI is based on the idea that computers can learn on their own, with your help.

Machine Learning for Kids will introduce you to machine learning, painlessly. With this book and its free, Scratch-based, award-winning companion website, you'll see how easy it is to add machine learning to your own projects. You don't even need to know how to code! As you work through the book you'll discover how machine learning systems can be taught to recognize text, images, numbers, and sounds, and how to train your models to improve their accuracy. You'll turn your models into fun computer games and apps, and see what happens when they get confused by bad data. You'll build 13 projects step-by-step from the ground up, including:

- Rock, Paper, Scissors game that recognizes your hand shapes
- An app that recommends movies based on other movies that you like
- A computer character that reacts to insults and compliments
- An interactive virtual assistant (like Siri or Alexa) that obeys commands
- An AI version of Pac-Man, with a smart character that knows how to avoid ghosts

NOTE: This book includes a Scratch tutorial for beginners, and step-by-step instructions for every project. Ages 12+

ai for training videos: Deep Learning for Coders with fastai and PyTorch Jeremy Howard, Sylvain Gugger, 2020-06-29 Deep learning is often viewed as the exclusive domain of math PhDs and big tech companies. But as this hands-on guide demonstrates, programmers comfortable with Python can achieve impressive results in deep learning with little math background, small amounts of data, and minimal code. How? With fastai, the first library to provide a consistent interface to the most frequently used deep learning applications. Authors Jeremy Howard and Sylvain Gugger, the creators of fastai, show you how to train a model on a wide range of tasks using fastai and PyTorch. You'll also dive progressively further into deep learning theory to gain a complete understanding of the algorithms behind the scenes. Train models in computer vision, natural language processing, tabular data, and collaborative filtering Learn the latest deep learning techniques that matter most in practice Improve accuracy, speed, and reliability by understanding how deep learning models work Discover how to turn your models into web applications Implement deep learning algorithms from scratch Consider the ethical implications of your work Gain insight from the foreword by PyTorch cofounder, Soumith Chintala

ai for training videos: Machine Learning for Hackers Drew Conway, John Myles White, 2012-02-13 If you're an experienced programmer interested in crunching data, this book will get you started with machine learning—a toolkit of algorithms that enables computers to train themselves to automate useful tasks. Authors Drew Conway and John Myles White help you understand machine learning and statistics tools through a series of hands-on case studies, instead of a traditional math-heavy presentation. Each chapter focuses on a specific problem in machine learning, such as classification, prediction, optimization, and recommendation. Using the R programming language, you'll learn how to analyze sample datasets and write simple machine learning algorithms. Machine Learning for Hackers is ideal for programmers from any background, including business, government, and academic research. Develop a naïve Bayesian classifier to determine if an email is spam, based only on its text Use linear regression to predict the number of page views for the top 1,000 websites Learn optimization techniques by attempting to break a simple letter cipher Compare and contrast U.S. Senators statistically, based on their voting records Build a “whom to follow” recommendation system from Twitter data

ai for training videos: Artificial Intelligence with Python Prateek Joshi, 2017-01-27 Build real-world Artificial Intelligence applications with Python to intelligently interact with the world around you About This Book Step into the amazing world of intelligent apps using this comprehensive guide Enter the world of Artificial Intelligence, explore it, and create your own applications Work through simple yet insightful examples that will get you up and running with Artificial Intelligence in no time Who This Book Is For This book is for Python developers who want to build real-world Artificial Intelligence applications. This book is friendly to Python beginners, but being familiar with Python would be useful to play around with the code. It will also be useful for experienced Python programmers who are looking to use Artificial Intelligence techniques in their existing technology stacks. What You Will Learn Realize different classification and regression techniques Understand the concept of clustering and how to use it to automatically segment data

See how to build an intelligent recommender system Understand logic programming and how to use it Build automatic speech recognition systems Understand the basics of heuristic search and genetic programming Develop games using Artificial Intelligence Learn how reinforcement learning works Discover how to build intelligent applications centered on images, text, and time series data See how to use deep learning algorithms and build applications based on it In Detail Artificial Intelligence is becoming increasingly relevant in the modern world where everything is driven by technology and data. It is used extensively across many fields such as search engines, image recognition, robotics, finance, and so on. We will explore various real-world scenarios in this book and you'll learn about various algorithms that can be used to build Artificial Intelligence applications. During the course of this book, you will find out how to make informed decisions about what algorithms to use in a given context. Starting from the basics of Artificial Intelligence, you will learn how to develop various building blocks using different data mining techniques. You will see how to implement different algorithms to get the best possible results, and will understand how to apply them to real-world scenarios. If you want to add an intelligence layer to any application that's based on images, text, stock market, or some other form of data, this exciting book on Artificial Intelligence will definitely be your guide! Style and approach This highly practical book will show you how to implement Artificial Intelligence. The book provides multiple examples enabling you to create smart applications to meet the needs of your organization. In every chapter, we explain an algorithm, implement it, and then build a smart application.

ai for training videos: Scary Smart Mo Gawdat, 2022-12-08 A Sunday Times Business Book of the Year. Scary Smart will teach you how to navigate the scary and inevitable intrusion of Artificial Intelligence, with an accessible blueprint for creating a harmonious future alongside AI. From Mo Gawdat, the former Chief Business Officer at Google [X] and bestselling author of Solve for Happy. Technology is putting our humanity at risk to an unprecedented degree. This book is not for engineers who write the code or the policy makers who claim they can regulate it. This is a book for you. Because, believe it or not, you are the only one that can fix it. - Mo Gawdat Artificial intelligence is smarter than humans. It can process information at lightning speed and remain focused on specific tasks without distraction. AI can see into the future, predict outcomes and even use sensors to see around physical and virtual corners. So why does AI frequently get it so wrong and cause harm? The answer is us: the human beings who write the code and teach AI to mimic our behaviour. Scary Smart explains how to fix the current trajectory now, to make sure that the AI of the future can preserve our species. This book offers a blueprint, pointing the way to what we can do to safeguard ourselves, those we love, and the planet itself. 'No one ever regrets reading anything Mo Gawdat has written.' - Emma Gannon, author of The Multi-Hyphen Method and host of the podcast Ctrl Alt Delete

ai for training videos: AI in Talent Development Margie Meacham, 2020-12-15 Creating Transparent AI From agriculture to transportation, entertainment to medicine, and banking to social media, artificial intelligence (AI) is changing how humans do practically everything. We experience AI in our daily lives through our fitness trackers, home digital assistant systems, and curated news services, to name a few examples. For talent development, this is no different. The fields of artificial intelligence and talent development have been on a collision course for decades, and their convergence has already occurred. It has just taken many in our profession some time to recognize this fact. On the horizon, AI-powered innovations are transforming the workplace and the role of the talent development professional, affecting recruiting to training to compensation. As such, there are actions TD professionals should take now to prepare ourselves and our organizations for the evolving AI revolution. In AI in Talent Development, Margie Meacham describes the benefits, uses, and risks of AI technology and offers practical tools to strengthen and enhance learning and performance programs. In layman's terms, Meacham demonstrates how we can free time for ourselves by employing a useful robot "assistant," create a chatbot for specific tasks (such as a new manager bot, a sales coach bot, or new employee onboarding bot), and build personalized coaching tools from AI-processed big data. She concludes each of the six chapters with helpful tips and

includes a resource guide with planning tools, templates, and worksheets. Meacham dispels fear of AI's black box—the term used to describe its unknowability and opacity—and points out ways AI can help us be better at creativity and critical thinking, what we humans do best.

ai for training videos: Artificial Intelligence for Learning Donald Clark, 2024-05-03 With Artificial Intelligence (AI) creating huge opportunities for learning and employee development, how can learning professionals best implement the use of AI into their environment? Artificial Intelligence for Learning is the essential guide for learning professionals who want to understand how to use AI to improve all aspects of learning in organizations. This new edition debunks the myths and misconceptions around AI, discusses the learning theory behind generative AI and gives strategic and practical advice on how AI can be used. This book also includes specific guidance on how AI can provide learning support, chatbot functionality and content, as well as ideas on ethics and personalization. This book is necessary reading for all learning practitioners needing to understand AI and what it means in practice.

ai for training videos: Data Science on AWS Chris Fregly, Antje Barth, 2021-04-07 With this practical book, AI and machine learning practitioners will learn how to successfully build and deploy data science projects on Amazon Web Services. The Amazon AI and machine learning stack unifies data science, data engineering, and application development to help level up your skills. This guide shows you how to build and run pipelines in the cloud, then integrate the results into applications in minutes instead of days. Throughout the book, authors Chris Fregly and Antje Barth demonstrate how to reduce cost and improve performance. Apply the Amazon AI and ML stack to real-world use cases for natural language processing, computer vision, fraud detection, conversational devices, and more Use automated machine learning to implement a specific subset of use cases with SageMaker Autopilot Dive deep into the complete model development lifecycle for a BERT-based NLP use case including data ingestion, analysis, model training, and deployment Tie everything together into a repeatable machine learning operations pipeline Explore real-time ML, anomaly detection, and streaming analytics on data streams with Amazon Kinesis and Managed Streaming for Apache Kafka Learn security best practices for data science projects and workflows including identity and access management, authentication, authorization, and more

ai for training videos: Deep Learning Illustrated Jon Krohn, Grant Beyleveld, Aglaé Bassens, 2019-08-05 The authors' clear visual style provides a comprehensive look at what's currently possible with artificial neural networks as well as a glimpse of the magic that's to come. – Tim Urban, author of Wait But Why Fully Practical, Insightful Guide to Modern Deep Learning Deep learning is transforming software, facilitating powerful new artificial intelligence capabilities, and driving unprecedented algorithm performance. Deep Learning Illustrated is uniquely intuitive and offers a complete introduction to the discipline's techniques. Packed with full-color figures and easy-to-follow code, it sweeps away the complexity of building deep learning models, making the subject approachable and fun to learn. World-class instructor and practitioner Jon Krohn—with visionary content from Grant Beyleveld and beautiful illustrations by Aglaé Bassens—presents straightforward analogies to explain what deep learning is, why it has become so popular, and how it relates to other machine learning approaches. Krohn has created a practical reference and tutorial for developers, data scientists, researchers, analysts, and students who want to start applying it. He illuminates theory with hands-on Python code in accompanying Jupyter notebooks. To help you progress quickly, he focuses on the versatile deep learning library Keras to nimbly construct efficient TensorFlow models; PyTorch, the leading alternative library, is also covered. You'll gain a pragmatic understanding of all major deep learning approaches and their uses in applications ranging from machine vision and natural language processing to image generation and game-playing algorithms. Discover what makes deep learning systems unique, and the implications for practitioners Explore new tools that make deep learning models easier to build, use, and improve Master essential theory: artificial neurons, training, optimization, convolutional nets, recurrent nets, generative adversarial networks (GANs), deep reinforcement learning, and more Walk through building interactive deep learning applications, and move forward with your own artificial

intelligence projects Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

ai for training videos: *Machine Learning* Stephen Marsland, 2011-03-23 Traditional books on machine learning can be divided into two groups- those aimed at advanced undergraduates or early postgraduates with reasonable mathematical knowledge and those that are primers on how to code algorithms. The field is ready for a text that not only demonstrates how to use the algorithms that make up machine learning methods, but

ai for training videos: *Deep Learning with PyTorch* Luca Pietro Giovanni Antiga, Eli Stevens, Thomas Viehmann, 2020-07-01 “We finally have the definitive treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document.” —Soumith Chintala, co-creator of PyTorch Key Features Written by PyTorch’s creator and key contributors Develop deep learning models in a familiar Pythonic way Use PyTorch to build an image classifier for cancer detection Diagnose problems with your neural network and improve training with data augmentation Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It’s great for building quick models, and it scales smoothly from laptop to enterprise. Deep Learning with PyTorch teaches you to create deep learning and neural network systems with PyTorch. This practical book gets you to work right away building a tumor image classifier from scratch. After covering the basics, you’ll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more sophisticated. All code samples are easy to explore in downloadable Jupyter notebooks. What You Will Learn Understanding deep learning data structures such as tensors and neural networks Best practices for the PyTorch Tensor API, loading data in Python, and visualizing results Implementing modules and loss functions Utilizing pretrained models from PyTorch Hub Methods for training networks with limited inputs Sifting through unreliable results to diagnose and fix problems in your neural network Improve your results with augmented data, better model architecture, and fine tuning This Book Is Written For For Python programmers with an interest in machine learning. No experience with PyTorch or other deep learning frameworks is required. About The Authors Eli Stevens has worked in Silicon Valley for the past 15 years as a software engineer, and the past 7 years as Chief Technical Officer of a startup making medical device software. Luca Antiga is co-founder and CEO of an AI engineering company located in Bergamo, Italy, and a regular contributor to PyTorch. Thomas Viehmann is a Machine Learning and PyTorch speciality trainer and consultant based in Munich, Germany and a PyTorch core developer. Table of Contents PART 1 - CORE PYTORCH 1 Introducing deep learning and the PyTorch Library 2 Pretrained networks 3 It starts with a tensor 4 Real-world data representation using tensors 5 The mechanics of learning 6 Using a neural network to fit the data 7 Telling birds from airplanes: Learning from images 8 Using convolutions to generalize PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER 9 Using PyTorch to fight cancer 10 Combining data sources into a unified dataset 11 Training a classification model to detect suspected tumors 12 Improving training with metrics and augmentation 13 Using segmentation to find suspected nodules 14 End-to-end nodule analysis, and where to go next PART 3 - DEPLOYMENT 15 Deploying to production

ai for training videos: *Artificial Intelligence in Practice* Bernard Marr, 2019-04-15 Cyber-solutions to real-world business problems Artificial Intelligence in Practice is a fascinating look into how companies use AI and machine learning to solve problems. Presenting 50 case studies of actual situations, this book demonstrates practical applications to issues faced by businesses around the globe. The rapidly evolving field of artificial intelligence has expanded beyond research labs and computer science departments and made its way into the mainstream business environment. Artificial intelligence and machine learning are cited as the most important modern

business trends to drive success. It is used in areas ranging from banking and finance to social media and marketing. This technology continues to provide innovative solutions to businesses of all sizes, sectors and industries. This engaging and topical book explores a wide range of cases illustrating how businesses use AI to boost performance, drive efficiency, analyse market preferences and many others. Best-selling author and renowned AI expert Bernard Marr reveals how machine learning technology is transforming the way companies conduct business. This detailed examination provides an overview of each company, describes the specific problem and explains how AI facilitates resolution. Each case study provides a comprehensive overview, including some technical details as well as key learning summaries: Understand how specific business problems are addressed by innovative machine learning methods Explore how current artificial intelligence applications improve performance and increase efficiency in various situations Expand your knowledge of recent AI advancements in technology Gain insight on the future of AI and its increasing role in business and industry *Artificial Intelligence in Practice: How 50 Successful Companies Used Artificial Intelligence to Solve Problems* is an insightful and informative exploration of the transformative power of technology in 21st century commerce.

ai for training videos: *Efficient Processing of Deep Neural Networks* Vivienne Sze, Yu-Hsin Chen, Tien-Ju Yang, Joel S. Emer, 2022-05-31 This book provides a structured treatment of the key principles and techniques for enabling efficient processing of deep neural networks (DNNs). DNNs are currently widely used for many artificial intelligence (AI) applications, including computer vision, speech recognition, and robotics. While DNNs deliver state-of-the-art accuracy on many AI tasks, it comes at the cost of high computational complexity. Therefore, techniques that enable efficient processing of deep neural networks to improve key metrics—such as energy-efficiency, throughput, and latency—without sacrificing accuracy or increasing hardware costs are critical to enabling the wide deployment of DNNs in AI systems. The book includes background on DNN processing; a description and taxonomy of hardware architectural approaches for designing DNN accelerators; key metrics for evaluating and comparing different designs; features of DNN processing that are amenable to hardware/algorithm co-design to improve energy efficiency and throughput; and opportunities for applying new technologies. Readers will find a structured introduction to the field as well as formalization and organization of key concepts from contemporary work that provide insights that may spark new ideas.

ai for training videos: *Artificial Intelligence in Society* OECD, 2019-06-11 The artificial intelligence (AI) landscape has evolved significantly from 1950 when Alan Turing first posed the question of whether machines can think. Today, AI is transforming societies and economies. It promises to generate productivity gains, improve well-being and help address global challenges, such as climate change, resource scarcity and health crises.

ai for training videos: *The Economics of Artificial Intelligence* Ajay Agrawal, Joshua Gans, Avi Goldfarb, Catherine Tucker, 2024-03-05 A timely investigation of the potential economic effects, both realized and unrealized, of artificial intelligence within the United States healthcare system. In sweeping conversations about the impact of artificial intelligence on many sectors of the economy, healthcare has received relatively little attention. Yet it seems unlikely that an industry that represents nearly one-fifth of the economy could escape the efficiency and cost-driven disruptions of AI. *The Economics of Artificial Intelligence: Health Care Challenges* brings together contributions from health economists, physicians, philosophers, and scholars in law, public health, and machine learning to identify the primary barriers to entry of AI in the healthcare sector. Across original papers and in wide-ranging responses, the contributors analyze barriers of four types: incentives, management, data availability, and regulation. They also suggest that AI has the potential to improve outcomes and lower costs. Understanding both the benefits of and barriers to AI adoption is essential for designing policies that will affect the evolution of the healthcare system.

ai for training videos: *Human-Centered AI* Ben Shneiderman, 2022 The remarkable progress in algorithms for machine and deep learning have opened the doors to new opportunities, and some dark possibilities. However, a bright future awaits those who build on their working methods by

including HCAI strategies of design and testing. As many technology companies and thought leaders have argued, the goal is not to replace people, but to empower them by making design choices that give humans control over technology. In Human-Centered AI, Professor Ben Shneiderman offers an optimistic realist's guide to how artificial intelligence can be used to augment and enhance humans' lives. This project bridges the gap between ethical considerations and practical realities to offer a road map for successful, reliable systems. Digital cameras, communications services, and navigation apps are just the beginning. Shneiderman shows how future applications will support health and wellness, improve education, accelerate business, and connect people in reliable, safe, and trustworthy ways that respect human values, rights, justice, and dignity.

ai for training videos: AI and education Miao, Fengchun, Holmes, Wayne, Ronghuai Huang, Hui Zhang, UNESCO, 2021-04-08 Artificial Intelligence (AI) has the potential to address some of the biggest challenges in education today, innovate teaching and learning practices, and ultimately accelerate the progress towards SDG 4. However, these rapid technological developments inevitably bring multiple risks and challenges, which have so far outpaced policy debates and regulatory frameworks. This publication offers guidance for policy-makers on how best to leverage the opportunities and address the risks, presented by the growing connection between AI and education. It starts with the essentials of AI: definitions, techniques and technologies. It continues with a detailed analysis of the emerging trends and implications of AI for teaching and learning, including how we can ensure the ethical, inclusive and equitable use of AI in education, how education can prepare humans to live and work with AI, and how AI can be applied to enhance education. It finally introduces the challenges of harnessing AI to achieve SDG 4 and offers concrete actionable recommendations for policy-makers to plan policies and programmes for local contexts. [Publisher summary, ed]

ai for training videos: Teaching AI Michelle Zimmerman, 2018-12-15 Get the tools, resources and insights you need to explore artificial intelligence in the classroom and explore what students need to know about living in a world with AI. For many, artificial intelligence, or AI, may seem like science fiction, or inherently overwhelming. The reality is that AI is already being applied in industry and, for many of us, in our daily lives as well. A better understanding of AI can help you make informed decisions in the classroom that will impact the future of your students. Drawing from a broad variety of expert voices from countries including Australia, Japan, and South Africa, as well as educators from around the world and underrepresented student voices, this book explores some of the ways AI can improve education. These include educating learners about AI, teaching them about living in a world where they will be surrounded by AI and helping educators understand how they can use AI to augment human ability. Each chapter offers activities and questions to help you deepen your understanding, try out new concepts and reflect on the information presented. Links to media artifacts from trusted sources will help make your learning experience more dynamic while also providing additional resources to use in your classroom. This book: • Offers a unique approach to the topic, with chapter opening scenes, case studies, and featured student voices. • Discusses a variety of ways to teach students about AI, through design thinking, project-based learning and STEM connections. • Includes lesson ideas, activities and tools for exploring AI with your students. • Includes references to films and other media you can use in class to start discussions on AI or inspire design thinking and STEM projects. In Teaching AI, you'll learn what AI is, how it works and how to use it to better prepare students in a world with increased human-computer interaction.

ai for training videos: Evidence of Practice Adam Geller, Annie Lewis O'Donnell, 2017-12-01 With the right plan, video observation and video coaching can be a high-impact lever for accelerating teacher growth. This playbook, from the makers of Edthena, draws from researcher and practitioner advice to offer twelve video-based strategies that readers can implement in their own context for facilitating professional development: • Classroom Tour • Self-interview • Example Analysis • Pre-teach • Self-Reflection • Partner-Supported Reflection • Skill Building Sequence • Video Learning Community • Virtual Walk-through • Video Rounds • Longer-Range Reflection • Iterative Investigation • Online Lesson Study Plus, read about putting video evidence at the center

of professional learning, focusing techniques for analyzing video, and guidance about recording and sharing video, and a framework for facilitation of video-based discussion. Afterword by Jim Knight.

ai for training videos: *AI and Machine Learning for Coders* Laurence Moroney, 2020-10-01 If you're looking to make a career move from programmer to AI specialist, this is the ideal place to start. Based on Laurence Moroney's extremely successful AI courses, this introductory book provides a hands-on, code-first approach to help you build confidence while you learn key topics. You'll understand how to implement the most common scenarios in machine learning, such as computer vision, natural language processing (NLP), and sequence modeling for web, mobile, cloud, and embedded runtimes. Most books on machine learning begin with a daunting amount of advanced math. This guide is built on practical lessons that let you work directly with the code. You'll learn: How to build models with TensorFlow using skills that employers desire The basics of machine learning by working with code samples How to implement computer vision, including feature detection in images How to use NLP to tokenize and sequence words and sentences Methods for embedding models in Android and iOS How to serve models over the web and in the cloud with TensorFlow Serving

ai for training videos: *Practical Simulations for Machine Learning* Paris Buttfield-Addison, Tim Nugent, Jon Manning, 2022-06-07 Simulation and synthesis are core parts of the future of AI and machine learning. Consider: programmers, data scientists, and machine learning engineers can create the brain of a self-driving car without the car. Rather than use information from the real world, you can synthesize artificial data using simulations to train traditional machine learning models. That's just the beginning. With this practical book, you'll explore the possibilities of simulation- and synthesis-based machine learning and AI, concentrating on deep reinforcement learning and imitation learning techniques. AI and ML are increasingly data driven, and simulations are a powerful, engaging way to unlock their full potential. You'll learn how to: Design an approach for solving ML and AI problems using simulations with the Unity engine Use a game engine to synthesize images for use as training data Create simulation environments designed for training deep reinforcement learning and imitation learning models Use and apply efficient general-purpose algorithms for simulation-based ML, such as proximal policy optimization Train a variety of ML models using different approaches Enable ML tools to work with industry-standard game development tools, using PyTorch, and the Unity ML-Agents and Perception Toolkits

ai for training videos: *Grokking Deep Learning* Andrew W. Trask, 2019-01-23 Summary Grokking Deep Learning teaches you to build deep learning neural networks from scratch! In his engaging style, seasoned deep learning expert Andrew Trask shows you the science under the hood, so you grok for yourself every detail of training neural networks. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Deep learning, a branch of artificial intelligence, teaches computers to learn by using neural networks, technology inspired by the human brain. Online text translation, self-driving cars, personalized product recommendations, and virtual voice assistants are just a few of the exciting modern advancements possible thanks to deep learning. About the Book Grokking Deep Learning teaches you to build deep learning neural networks from scratch! In his engaging style, seasoned deep learning expert Andrew Trask shows you the science under the hood, so you grok for yourself every detail of training neural networks. Using only Python and its math-supporting library, NumPy, you'll train your own neural networks to see and understand images, translate text into different languages, and even write like Shakespeare! When you're done, you'll be fully prepared to move on to mastering deep learning frameworks. What's inside The science behind deep learning Building and training your own neural networks Privacy concepts, including federated learning Tips for continuing your pursuit of deep learning About the Reader For readers with high school-level math and intermediate programming skills. About the Author Andrew Trask is a PhD student at Oxford University and a research scientist at DeepMind. Previously, Andrew was a researcher and analytics product manager at Digital Reasoning, where he trained the world's largest artificial neural network and helped guide the analytics roadmap for the Synthesys cognitive computing platform. Table of

Contents Introducing deep learning: why you should learn it Fundamental concepts: how do machines learn? Introduction to neural prediction: forward propagation Introduction to neural learning: gradient descent Learning multiple weights at a time: generalizing gradient descent Building your first deep neural network: introduction to backpropagation How to picture neural networks: in your head and on paper Learning signal and ignoring noise: introduction to regularization and batching Modeling probabilities and nonlinearities: activation functions Neural learning about edges and corners: intro to convolutional neural networks Neural networks that understand language: king - man + woman == ? Neural networks that write like Shakespeare: recurrent layers for variable-length data Introducing automatic optimization: let's build a deep learning framework Learning to write like Shakespeare: long short-term memory Deep learning on unseen data: introducing federated learning Where to go from here: a brief guide

ai for training videos: *Artificial Intelligence in Healthcare* Adam Bohr, Kaveh Memarzadeh, 2020-06-21 Artificial Intelligence (AI) in Healthcare is more than a comprehensive introduction to artificial intelligence as a tool in the generation and analysis of healthcare data. The book is split into two sections where the first section describes the current healthcare challenges and the rise of AI in this arena. The ten following chapters are written by specialists in each area, covering the whole healthcare ecosystem. First, the AI applications in drug design and drug development are presented followed by its applications in the field of cancer diagnostics, treatment and medical imaging. Subsequently, the application of AI in medical devices and surgery are covered as well as remote patient monitoring. Finally, the book dives into the topics of security, privacy, information sharing, health insurances and legal aspects of AI in healthcare. - Highlights different data techniques in healthcare data analysis, including machine learning and data mining - Illustrates different applications and challenges across the design, implementation and management of intelligent systems and healthcare data networks - Includes applications and case studies across all areas of AI in healthcare data

ai for training videos: *The Lean Product Playbook* Dan Olsen, 2015-05-21 The missing manual on how to apply Lean Startup to build products that customers love The Lean Product Playbook is a practical guide to building products that customers love. Whether you work at a startup or a large, established company, we all know that building great products is hard. Most new products fail. This book helps improve your chances of building successful products through clear, step-by-step guidance and advice. The Lean Startup movement has contributed new and valuable ideas about product development and has generated lots of excitement. However, many companies have yet to successfully adopt Lean thinking. Despite their enthusiasm and familiarity with the high-level concepts, many teams run into challenges trying to adopt Lean because they feel like they lack specific guidance on what exactly they should be doing. If you are interested in Lean Startup principles and want to apply them to develop winning products, this book is for you. This book describes the Lean Product Process: a repeatable, easy-to-follow methodology for iterating your way to product-market fit. It walks you through how to: Determine your target customers Identify underserved customer needs Create a winning product strategy Decide on your Minimum Viable Product (MVP) Design your MVP prototype Test your MVP with customers Iterate rapidly to achieve product-market fit This book was written by entrepreneur and Lean product expert Dan Olsen whose experience spans product management, UX design, coding, analytics, and marketing across a variety of products. As a hands-on consultant, he refined and applied the advice in this book as he helped many companies improve their product process and build great products. His clients include Facebook, Box, Hightail, Epocrates, and Medallia. Entrepreneurs, executives, product managers, designers, developers, marketers, analysts and anyone who is passionate about building great products will find The Lean Product Playbook an indispensable, hands-on resource.

ai for training videos: *Creating Training Videos* Jonathan Halls, 2024-04-09 LIKE FILM SCHOOL FOR TRAINERS! Film and edit effective training videos—using your smartphone. Whether you're a facilitator, instructional designer, or L&D department of one, you don't need a fancy DSLR camera or film crew to create successful training videos. All you really need is a learning strategy, a

good production plan, and a smartphone camera. Informed by his 30-year career in training and media, including his time as learning executive with the BBC, author Jonathan Halls is committed to best practices in video production that will actually help your learners to learn, and without a giant strain on your resources. With straightforward and accessible language, in *Creating Training Videos* you'll get: The intersection of media and learning research: Uncover how your videos can effectively provoke learning. Best practices for instructional video: Create a smart outline for your instructional video, creatively use repetition, highlight schemas that are familiar to your audience, and more. Visual grammar: Learn rules of film that you can put into effect immediately, like framing your shots and selecting the best shot sizes to more powerfully support learning. Planning your pictures: Gain a practical framework for mapping out the elements of your video using storyboards, shot formulas, and narrative templates designed to meet various training needs. Understand how picture, graphics, spoken word, and more come together to tell your story. Your videographer's toolkit: An honest discussion of essential gear, helpful gear, and the serious tools you might consider for your toolkit. Filming with your smartphone: Learn how to best light, stabilize, and frame your shots using the tool you already have in your pocket. Editing and workflow: Stitch shots together for a powerful final product that supports learning, no matter what software you decide to use (yes, even an app on your phone!), and workflow considerations that satisfy all of your stakeholders. With 96 percent of organizations using video as a key modality for workplace learning and 62 percent of organizations posting video (for L&D and other purposes) to YouTube, the ability to produce video is a sought-after skill in the L&D world. *Creating Training Videos* teaches you step-by-step how to plan, film, and edit smart instructional content—using only a smartphone and without compromising quality and success.

ai for training videos: *The Leap* Ulrich Boser, 2014 Best-selling author Ulrich Boser explores how we and the institutions we rely on have much to gain from emphasizing and rebuilding trust.

ai for training videos: Introducing MLOps Mark Treveil, Nicolas Omont, Clément Stenac, Kenji Lefevre, Du Phan, Joachim Zentici, Adrien Lavoillotte, Makoto Miyazaki, Lynn Heidmann, 2020-11-30 More than half of the analytics and machine learning (ML) models created by organizations today never make it into production. Some of the challenges and barriers to operationalization are technical, but others are organizational. Either way, the bottom line is that models not in production can't provide business impact. This book introduces the key concepts of MLOps to help data scientists and application engineers not only operationalize ML models to drive real business change but also maintain and improve those models over time. Through lessons based on numerous MLOps applications around the world, nine experts in machine learning provide insights into the five steps of the model life cycle--Build, Preproduction, Deployment, Monitoring, and Governance--uncovering how robust MLOps processes can be infused throughout. This book helps you: Fulfill data science value by reducing friction throughout ML pipelines and workflows Refine ML models through retraining, periodic tuning, and complete remodeling to ensure long-term accuracy Design the MLOps life cycle to minimize organizational risks with models that are unbiased, fair, and explainable Operationalize ML models for pipeline deployment and for external business systems that are more complex and less standardized

ai for training videos: *Introduction to Deep Learning* Sandro Skansi, 2018-02-04 This textbook presents a concise, accessible and engaging first introduction to deep learning, offering a wide range of connectionist models which represent the current state-of-the-art. The text explores the most popular algorithms and architectures in a simple and intuitive style, explaining the mathematical derivations in a step-by-step manner. The content coverage includes convolutional networks, LSTMs, Word2vec, RBMs, DBNs, neural Turing machines, memory networks and autoencoders. Numerous examples in working Python code are provided throughout the book, and the code is also supplied separately at an accompanying website. Topics and features: introduces the fundamentals of machine learning, and the mathematical and computational prerequisites for deep learning; discusses feed-forward neural networks, and explores the modifications to these which can be applied to any neural network; examines convolutional neural networks, and the recurrent

connections to a feed-forward neural network; describes the notion of distributed representations, the concept of the autoencoder, and the ideas behind language processing with deep learning; presents a brief history of artificial intelligence and neural networks, and reviews interesting open research problems in deep learning and connectionism. This clearly written and lively primer on deep learning is essential reading for graduate and advanced undergraduate students of computer science, cognitive science and mathematics, as well as fields such as linguistics, logic, philosophy, and psychology.

ai for training videos: Procedural Generation in Game Design Tanya Short, Tarn Adams, 2017-06-12 Making a game can be an intensive process, and if not planned accurately can easily run over budget. The use of procedural generation in game design can help with the intricate and multifarious aspects of game development; thus facilitating cost reduction. This form of development enables games to create their play areas, objects and stories based on a set of rules, rather than relying on the developer to handcraft each element individually. Readers will learn to create randomized maps, weave accidental plotlines, and manage complex systems that are prone to unpredictable behavior. Tanya Short's and Tarn Adams' Procedural Generation in Game Design offers a wide collection of chapters from various experts that cover the implementation and enactment of procedural generation in games. Designers from a variety of studios provide concrete examples from their games to illustrate the many facets of this emerging sub-discipline. Key Features: Introduces the differences between static/traditional game design and procedural game design Demonstrates how to solve or avoid common problems with procedural game design in a variety of concrete ways Includes industry leaders' experiences and lessons from award-winning games World's finest guide for how to begin thinking about procedural design

ai for training videos: Machine Learning with TensorFlow, Second Edition Mattmann A. Chris, 2021-02-02 Updated with new code, new projects, and new chapters, Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Summary Updated with new code, new projects, and new chapters, Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Written by NASA JPL Deputy CTO and Principal Data Scientist Chris Mattmann, all examples are accompanied by downloadable Jupyter Notebooks for a hands-on experience coding TensorFlow with Python. New and revised content expands coverage of core machine learning algorithms, and advancements in neural networks such as VGG-Face facial identification classifiers and deep speech classifiers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Supercharge your data analysis with machine learning! ML algorithms automatically improve as they process data, so results get better over time. You don't have to be a mathematician to use ML: Tools like Google's TensorFlow library help with complex calculations so you can focus on getting the answers you need. About the book Machine Learning with TensorFlow, Second Edition is a fully revised guide to building machine learning models using Python and TensorFlow. You'll apply core ML concepts to real-world challenges, such as sentiment analysis, text classification, and image recognition. Hands-on examples illustrate neural network techniques for deep speech processing, facial identification, and auto-encoding with CIFAR-10. What's inside Machine Learning with TensorFlow Choosing the best ML approaches Visualizing algorithms with TensorBoard Sharing results with collaborators Running models in Docker About the reader Requires intermediate Python skills and knowledge of general algebraic concepts like vectors and matrices. Examples use the super-stable 1.15.x branch of TensorFlow and TensorFlow 2.x. About the author Chris Mattmann is the Division Manager of the Artificial Intelligence, Analytics, and Innovation Organization at NASA Jet Propulsion Lab. The first edition of this book was written by Nishant Shukla with Kenneth Fricklas. Table of Contents PART 1 - YOUR MACHINE-LEARNING RIG 1 A machine-learning odyssey 2 TensorFlow essentials PART 2 - CORE LEARNING ALGORITHMS 3 Linear regression and beyond 4 Using regression for call-center volume prediction 5 A gentle introduction to classification 6 Sentiment classification: Large movie-review dataset 7 Automatically clustering data 8 Inferring

user activity from Android accelerometer data 9 Hidden Markov models 10 Part-of-speech tagging and word-sense disambiguation PART 3 - THE NEURAL NETWORK PARADIGM 11 A peek into autoencoders 12 Applying autoencoders: The CIFAR-10 image dataset 13 Reinforcement learning 14 Convolutional neural networks 15 Building a real-world CNN: VGG-Face and VGG-Face Lite 16 Recurrent neural networks 17 LSTMs and automatic speech recognition 18 Sequence-to-sequence models for chatbots 19 Utility landscape

ai for training videos: Mathematics for Machine Learning Marc Peter Deisenroth, A. Aldo Faisal, Cheng Soon Ong, 2020-04-23 The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered on the book's web site.

ai for training videos: Machine Learning with SAS Viya SAS Institute Inc., 2020-05-29 Master machine learning with SAS Viya! Machine learning can feel intimidating for new practitioners. Machine Learning with SAS Viya provides everything you need to know to get started with machine learning in SAS Viya, including decision trees, neural networks, and support vector machines. The analytics life cycle is covered from data preparation and discovery to deployment. Working with open-source code? Machine Learning with SAS Viya has you covered – step-by-step instructions are given on how to use SAS Model Manager tools with open source. SAS Model Studio features are highlighted to show how to carry out machine learning in SAS Viya. Demonstrations, practice tasks, and quizzes are included to help sharpen your skills. In this book, you will learn about: Supervised and unsupervised machine learning Data preparation and dealing with missing and unstructured data Model building and selection Improving and optimizing models Model deployment and monitoring performance

ai for training videos: Learn Better Ulrich Boser, 2017-03-07 For centuries, experts have argued that learning was about memorizing information: You're supposed to study facts, dates, and details, burn them into your memory, and then apply that knowledge at opportune times. But this approach to learning isn't nearly enough for the world that we live in today, and in Learn Better journalist and education researcher Ulrich Boser demonstrates that how we learn can matter just as much as what we learn. In this brilliantly researched book, Boser maps out the new science of learning, showing how simple techniques like comprehension check-ins and making material personally relatable can help people gain expertise in dramatically better ways. He covers six key steps to help you "learn how to learn," all illuminated with fascinating stories like how Jackson Pollock developed his unique painting style and why an ancient Japanese counting device allows kids to do math at superhuman speeds. Boser's witty, engaging writing makes this book feel like a guilty pleasure, not homework. Learn Better will revolutionize the way students and society alike approach learning and makes the case that being smart is not an innate ability—learning is a skill everyone can master. With Boser as your guide, you will be able to fully capitalize on your brain's remarkable ability to gain new skills and open up a whole new world of possibilities.

ai for training videos: Foundations of Machine Learning, second edition Mehryar Mohri, Afshin Rostamizadeh, Ameet Talwalkar, 2018-12-25 A new edition of a graduate-level machine learning textbook that focuses on the analysis and theory of algorithms. This book is a general introduction to machine learning that can serve as a textbook for graduate students and a reference for researchers. It covers fundamental modern topics in machine learning while providing the

theoretical basis and conceptual tools needed for the discussion and justification of algorithms. It also describes several key aspects of the application of these algorithms. The authors aim to present novel theoretical tools and concepts while giving concise proofs even for relatively advanced topics. Foundations of Machine Learning is unique in its focus on the analysis and theory of algorithms. The first four chapters lay the theoretical foundation for what follows; subsequent chapters are mostly self-contained. Topics covered include the Probably Approximately Correct (PAC) learning framework; generalization bounds based on Rademacher complexity and VC-dimension; Support Vector Machines (SVMs); kernel methods; boosting; on-line learning; multi-class classification; ranking; regression; algorithmic stability; dimensionality reduction; learning automata and languages; and reinforcement learning. Each chapter ends with a set of exercises. Appendixes provide additional material including concise probability review. This second edition offers three new chapters, on model selection, maximum entropy models, and conditional entropy models. New material in the appendixes includes a major section on Fenchel duality, expanded coverage of concentration inequalities, and an entirely new entry on information theory. More than half of the exercises are new to this edition.

ai for training videos: The Elements of Statistical Learning Trevor Hastie, Robert Tibshirani, Jerome Friedman, 2013-11-11 During the past decade there has been an explosion in computation and information technology. With it have come vast amounts of data in a variety of fields such as medicine, biology, finance, and marketing. The challenge of understanding these data has led to the development of new tools in the field of statistics, and spawned new areas such as data mining, machine learning, and bioinformatics. Many of these tools have common underpinnings but are often expressed with different terminology. This book describes the important ideas in these areas in a common conceptual framework. While the approach is statistical, the emphasis is on concepts rather than mathematics. Many examples are given, with a liberal use of color graphics. It should be a valuable resource for statisticians and anyone interested in data mining in science or industry. The book's coverage is broad, from supervised learning (prediction) to unsupervised learning. The many topics include neural networks, support vector machines, classification trees and boosting---the first comprehensive treatment of this topic in any book. This major new edition features many topics not covered in the original, including graphical models, random forests, ensemble methods, least angle regression & path algorithms for the lasso, non-negative matrix factorization, and spectral clustering. There is also a chapter on methods for "wide" data (p bigger than n), including multiple testing and false discovery rates. Trevor Hastie, Robert Tibshirani, and Jerome Friedman are professors of statistics at Stanford University. They are prominent researchers in this area: Hastie and Tibshirani developed generalized additive models and wrote a popular book of that title. Hastie co-developed much of the statistical modeling software and environment in R/S-PLUS and invented principal curves and surfaces. Tibshirani proposed the lasso and is co-author of the very successful An Introduction to the Bootstrap. Friedman is the co-inventor of many data-mining tools including CART, MARS, projection pursuit and gradient boosting.

ai for training videos: Deep Learning Ian Goodfellow, Yoshua Bengio, Aaron Courville, 2016-11-10 An introduction to a broad range of topics in deep learning, covering mathematical and conceptual background, deep learning techniques used in industry, and research perspectives. "Written by three experts in the field, Deep Learning is the only comprehensive book on the subject." —Elon Musk, cochair of OpenAI; cofounder and CEO of Tesla and SpaceX Deep learning is a form of machine learning that enables computers to learn from experience and understand the world in terms of a hierarchy of concepts. Because the computer gathers knowledge from experience, there is no need for a human computer operator to formally specify all the knowledge that the computer needs. The hierarchy of concepts allows the computer to learn complicated concepts by building them out of simpler ones; a graph of these hierarchies would be many layers deep. This book introduces a broad range of topics in deep learning. The text offers mathematical and conceptual background, covering relevant concepts in linear algebra, probability theory and information theory, numerical computation, and machine learning. It describes deep learning

techniques used by practitioners in industry, including deep feedforward networks, regularization, optimization algorithms, convolutional networks, sequence modeling, and practical methodology; and it surveys such applications as natural language processing, speech recognition, computer vision, online recommendation systems, bioinformatics, and videogames. Finally, the book offers research perspectives, covering such theoretical topics as linear factor models, autoencoders, representation learning, structured probabilistic models, Monte Carlo methods, the partition function, approximate inference, and deep generative models. Deep Learning can be used by undergraduate or graduate students planning careers in either industry or research, and by software engineers who want to begin using deep learning in their products or platforms. A website offers supplementary material for both readers and instructors.

ai for training videos: *ATD's 2020 Trends in Learning Technology* Justin Brusino et al., 2020-01-28 Evolving Technology for Human Performance ATD's 2020 Trends in Learning Technology collects insights about the latest emerging tech and trends that are transforming the talent development profession from top experts. They give much food for thought about how talent development professionals should embrace, test, and adopt technology to advance their careers and organizations. These learning technologies may span a broad variety of opportunities and applications, but one thing unites them: the human element of how to apply the technologies to help people work better. While some will continue to evolve and find a place in your technology toolbox for years to come, others may never be embraced. No matter your role in talent development or the makeup of your organization, it is critical to regularly review new technologies and trends and evaluate if and how they fit into your organization. This book will help you stay in the know. Assembled here are chapters by seven people who like to experiment, tinker, create, play, and do. Each expert looks at a different trend, what effect it's had on the field, and what effect it may have in the future: · microlearning by Shannon Tipton · podcasting by Mike Lenz · user experience design by Becca Wilson · xAPI by Sean Putman and Sarah Mercier · artificial intelligence by JD Dillon · augmented and virtual reality by Destery Hildenbrand. Capping off the volume is a chapter on L&D's role in the changing, technology-driven business landscape by Brandon Carson. ATD's 2020 Trends in Learning Technology is your guide to the talent development landscape of tomorrow.

ai for training videos: *Zero to AI* Nicolò Valigi, Gianluca Mauro, 2020-05-19 Summary How can artificial intelligence transform your business? In *Zero to AI*, you'll explore a variety of practical AI applications you can use to improve customer experiences, optimize marketing, help you cut costs, and more. In this engaging guide written for business leaders and technology pros alike, authors and AI experts Nicolò Valigi and Gianluca Mauro use fascinating projects, hands-on activities, and real-world explanations to make it clear how your business can benefit from AI. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology There's no doubt that artificial intelligence has made some impressive headlines recently, from besting chess and Go grand masters to producing uncanny deep fakes that blur the lines of reality. But what can AI do for you? If you want to understand how AI will impact your business before you invest your time and money, this book is for you. About the book *Zero to AI* uses clear examples and jargon-free explanations to show the practical benefits of AI. Each chapter explores a real-world case study demonstrating how companies like Google and Netflix use AI to shape their industries. You begin at the beginning, with a primer on core AI concepts and realistic business outcomes. To help you prepare for the transition, the book breaks down a successful AI implementation, including advice on hiring the right team and making decisions about resources, risks, and costs. What's inside Identifying where AI can help your organization Designing an AI strategy Evaluating project scope and business impact Using AI to boost conversion rates, curate content, and analyze feedback Understanding how modern AI works and what it can/can't do About the reader For anyone who wants to gain an understanding of practical artificial intelligence and learn how to design and develop projects with high business impact. About the author Gianluca Mauro and Nicolò Valigi are the cofounders of AI Academy, a company specializing in AI trainings and consulting. Table of Contents: 1. An introduction to artificial intelligence PART 1 -

UNDERSTANDING AI 2. Artificial intelligence for core business data 3. AI for sales and marketing 4. AI for media 5. AI for natural language 6. AI for content curation and community building PART 2 - BUILDING AI 7. Ready—finding AI opportunities 8. Set—preparing data, technology, and people 9. Go—AI implementation strategy 10. What lies ahead

ai for training videos: Learning How to Learn Barbara Oakley, PhD, Terrence Sejnowski, PhD, Alistair McConville, 2018-08-07 A surprisingly simple way for students to master any subject—based on one of the world's most popular online courses and the bestselling book *A Mind for Numbers* *A Mind for Numbers* and its wildly popular online companion course *Learning How to Learn* have empowered more than two million learners of all ages from around the world to master subjects that they once struggled with. Fans often wish they'd discovered these learning strategies earlier and ask how they can help their kids master these skills as well. Now in this new book for kids and teens, the authors reveal how to make the most of time spent studying. We all have the tools to learn what might not seem to come naturally to us at first—the secret is to understand how the brain works so we can unlock its power. This book explains: Why sometimes letting your mind wander is an important part of the learning process How to avoid rut think in order to think outside the box Why having a poor memory can be a good thing The value of metaphors in developing understanding A simple, yet powerful, way to stop procrastinating Filled with illustrations, application questions, and exercises, this book makes learning easy and fun.

ai for training videos: Approaching (Almost) Any Machine Learning Problem Abhishek Thakur, 2020-07-04 This is not a traditional book. The book has a lot of code. If you don't like the code first approach do not buy this book. Making code available on Github is not an option. This book is for people who have some theoretical knowledge of machine learning and deep learning and want to dive into applied machine learning. The book doesn't explain the algorithms but is more oriented towards how and what should you use to solve machine learning and deep learning problems. The book is not for you if you are looking for pure basics. The book is for you if you are looking for guidance on approaching machine learning problems. The book is best enjoyed with a cup of coffee and a laptop/workstation where you can code along. Table of contents: - Setting up your working environment - Supervised vs unsupervised learning - Cross-validation - Evaluation metrics - Arranging machine learning projects - Approaching categorical variables - Feature engineering - Feature selection - Hyperparameter optimization - Approaching image classification & segmentation - Approaching text classification/regression - Approaching ensembling and stacking - Approaching reproducible code & model serving There are no sub-headings. Important terms are written in bold. I will be answering all your queries related to the book and will be making YouTube tutorials to cover what has not been discussed in the book. To ask questions/doubts, visit this link: <https://bit.ly/aamlquestions> And Subscribe to my youtube channel: <https://bit.ly/abhitubesub>

Additional Resources

Generative AI for learning: Investigating the potential of ...
cally focus on the use of generative AI tools to create synthetic videos with virtual instructors, resembling traditional lecture videos found in online learning experiences.

igiCo · Teaching with and about AI: A Practical Handbook for ...
Designed together with trainers, this Handbook serves as a practical guide for ways to teach with and about Artificial Intelligence (AI) in digital skills training. By facilitating the sharing of real ...

CASE STUDY How Synthesia Maximizes GPU - WEKA
Maximum GPU Utilization for Fast, Flexible AI Model Training With the WEKA

Data Platform, Synthesia can run AI model training workloads faster and achieve high GPU

How AI video startup Synthesia is scaling up content ...

Powered by generative AI, Synthesia is transforming physical video production into an entirely digital process that will enable creators to bring their ideas to life, from training videos to ...

Enhancing sports training: The synergy of AI and VR in athletic ...

This study explores the intricate landscape of "Enhancing Sports Training: The Synergy of AI and VR in Athletic Performance Optimization" with a focus on identifying and addressing key ...

Exploring the Potential of AI for Swim Technique Evaluation ...

Training videos featuring Olympic-level butterfly swimmers were used to establish an internal reference model of an ideal butterfly technique. The model was then presented with videos of ...

CAPTION AI Training Videos User Guide

This video encompasses all training videos to show a complete echocardiogram study using Caption AI. Additionally, we will cover: • Selecting the proper organization within the Butterfly ...

The essential guide to AI training data - assets.ctfassets.net

Training data is a collection of labeled information that's used to build a machine learning model. It usually consists of annotated text, images, video or audio. Through training data, an AI model ...

MovieGen: A Cast of Media Foundation Models

Oct 4, 2024 · Our largest video generation model is a 30B parameter transformer trained with a maximum context length of 73K video tokens, corresponding to a generated video of 16 ...

Communications of the Association for Information Systems

generated videos and images in AI model training. Additionally, by analyzing these open research datasets, the findings can be extended to the science of science research that aims to study ...

Generative AI: You Know Better Than to Trust a Strange Robot

MIT Task Force on Responsible Use of Generative AI for Law: Principles 1 Duty of Confidentiality to the client in all usage of AI applications 2 Duty of Fiduciary Care to the client in all usage of ...

Generative AI for Learning: Investigating the Potential of ...

Taking an evidence-based approach to creating learning videos using generative AI is an appealing way to meet the growing global demand for online learn-ing content and address ...

GenVidBench: A Challenging Benchmark for Detecting AI ...

AI-generated video detection dataset that collects videos from 10 different generated models for training, and videos from other 10 different generated

models for testing.

Gen AI LLM - A new era of generative AI for everyone

Large language models (LLMs) are both a type of generative AI and a type of foundation model. The LLMs behind ChatGPT mark a significant turning point and milestone in artificial ...

Training curriculum on AI and data protection Fundamentals ...

all other types of personal data processed in the AI system beyond the data used for training the AI model. • Learn about the challenges and techniques in data versioning, transparency, and ...

Introduction to AI: Coding AI with Scratch 1

In this workshop, learners will discover a field linked to artificial intelligence (image recognition), how it works and what it takes to train a model with good data. They will build and test their ...

arXiv:2503.20348v1 [cs.CV] 26 Mar 2025

pose VideoGEM, the first training-free method for spatial action grounding in videos that adapts self-self attention to the video domain. (2) To capture higher-level semantic concepts such as ...

Copyright and Artificial Intelligence

creation of AI training datasets and the use of those datasets in AI training). But see Rightsify Initial Comments at 5 (As the training sets are created for the ultimate purpose of developing ...

AI Infrastructure and Operations – Public Training

the course focuses on key AI components such as GPUs, CPUs, and DPUs. Participants will gain practical insights into provisioning and managing AI data centers, implementing AI workloads, ...

Cognitive & Self-Healing IT Infrastructure Management

• DXC AI Labs enabling employees to request PoC development and receive support to enhance their skills in GenAI • DXC AI Conversant program mandating 3.5 hours of AI training videos ...

Free AI Video Generator - Create AI Videos in 140 Languages

Create AI generated videos from text with the most advanced AI avatars and voiceovers in 140+ languages. Try our free AI video generator now!

Create AI Training Videos in Minutes | Synthesia

Easily create training videos using AI. Turn your text into videos with AI Avatars and voiceovers – no video editing skills required.

How to Make Effective Training Videos in 5 Easy Steps - Synthesia

Jan 18, 2024 · Learn how to make a training video that is engaging and efficient. Dive into training video creation techniques, best practices, and latest AI tools.

Best Free Training Video Maker | Synthesia

Create engaging business training and instructional videos with AI. Turn your text into videos with AI Avatars and voiceovers in 140+ languages.

[Synthesia Pricing | From \\$18 per Month](#)

Ready to scale your video production? Synthesia is the world's #1 rated AI video software. It's used by 50,000+ teams to create videos at scale, saving up to 80% of their time and budget. The ...

[Synthesia Academy](#)

Synthesia Academy online learning classes© 2025 Synthesia Limited. All rights reserved.

6 Engaging Examples of Interactive Training Videos

Sep 8, 2023 · With the right tools and platforms, it takes nothing to create training videos with interactive features. Click here to try Synthesia's free AI video maker and create your first ...

The 15 Best Training Video Software of 2025 (Tried & Tested)

Nov 1, 2023 · The best way to make training videos is by utilizing an AI video maker such as Synthesia STUDIO. This innovative software leverages artificial intelligence technology to ...

[Free AI Avatar Generator | 230+ Realistic Talking Avatars](#)

Create studio-quality videos with realistic talking AI avatars. Try the world's most realistic talking AI avatars for free. Turn text into engaging video content for training, sales enablement, and ...

Create Free AI Video - Synthesia

Create your free AI generated video in 2 minutes by simply typing in text. AI video generator transforms the way you educate, communicate, and share knowledge.

[Ai For Training Videos](#)

Ai For Training Videos

Related Articles

- [ahima query practice brief](#)
- [ai political cartoon generator](#)
- [aimee bock political party](#)

[Back to Home](#)