

actuarial science at wits

Actuarial Science at Wits: A Historical Perspective and Current Relevance

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1. A Rich History: The Genesis of Actuarial Science at Wits

The Department of Actuarial Science at the University of the Witwatersrand (Wits) boasts a rich history, deeply intertwined with the development of the actuarial profession in South Africa. Established in [Insert Year of Establishment], the program quickly gained a reputation for academic excellence and produced many leading actuaries who have shaped the South African insurance and financial landscape. Early curriculum focused on classical actuarial techniques, emphasizing life insurance and pensions. The program adapted to changing global economic trends, incorporating new mathematical and statistical methodologies, and computer programming, a cornerstone of modern actuarial practice.

2. Curriculum and Pedagogy: Shaping Future Actuaries

The current Actuarial Science program at Wits provides a rigorous and comprehensive education, covering a broad spectrum of topics. Students are exposed to advanced mathematical and statistical concepts, including probability theory, stochastic processes, and time series analysis. The curriculum also encompasses core actuarial subjects such as life contingencies, general insurance modeling, financial economics, investment theory and risk management. A key strength of the program lies in its integration of theoretical knowledge with practical applications through case studies, simulations, and real-world projects. Students benefit from access to state-of-the-art software and computing resources, vital for modern actuarial practice. The emphasis on practical skills is further underscored by the program's strong industry links.

3. Industry Connections and Career Opportunities

The success of actuarial science at Wits is significantly linked to its robust industry relationships. The department maintains close ties with leading actuarial firms, insurance companies, and financial institutions in South Africa. This collaboration translates into internships, mentorship opportunities, and valuable networking experiences for students. Many graduates from the Wits Actuarial Science program secure employment at top companies both locally and internationally, reflecting the program's global recognition. The demand for qualified actuaries remains high, presenting graduates with diverse and challenging career paths.

4. Research and Innovation: Advancing the Field

The Department of Actuarial Science at Wits is actively engaged in cutting-edge research. Faculty members conduct research in various areas, including financial modeling, risk management, insurance regulation, and the application of actuarial techniques to social and environmental challenges. This research not only advances the field but also enriches the educational experience for students, providing opportunities for participation in research projects and exposure to leading scholars. Research at Wits often addresses the unique challenges faced by developing economies, reflecting the program's commitment to contributing to societal progress.

5. Adapting to the Evolving Landscape: Challenges and Opportunities

The actuarial profession is constantly evolving. The emergence of big data, advanced analytics, and artificial intelligence presents both challenges and opportunities for actuarial science. The Wits program is actively adapting to these changes by incorporating new technologies and methodologies into the curriculum, ensuring that graduates are equipped with the skills necessary to navigate the evolving landscape. The integration of data science and machine learning techniques into the program further strengthens the graduates' employability.

6. The Global Context of Actuarial Science at Wits

Actuarial Science at Wits not only serves the South African context but also plays a role in the global actuarial community. The program's high standards and strong industry connections attract students from across the globe,

contributing to a diverse and vibrant learning environment. Graduates from the program are well-placed to pursue careers internationally, reflecting the program's internationally recognized standards.

7. Diversity and Inclusion in Actuarial Science at Wits

The Department of Actuarial Science at Wits is committed to fostering a diverse and inclusive environment. Efforts are made to attract students from diverse backgrounds and promote equity within the program. This commitment is essential, given the importance of diversity in the actuarial profession and the need to address systemic biases within the financial industry.

8. The Future of Actuarial Science at Wits

The Department of Actuarial Science at Wits is well-positioned to continue its leadership in the field. By embracing innovation, strengthening industry ties, and fostering a diverse and inclusive environment, the program will continue to produce highly skilled and socially responsible actuaries who can address the complex challenges facing the world today. The ongoing commitment to research and adapting to the dynamic changes within the profession is crucial for maintaining its high standards and global relevance.

Conclusion:

Actuarial Science at Wits has a long and distinguished history, evolving alongside the profession itself. It continues to provide a rigorous and relevant education, preparing graduates for successful careers in a dynamic global marketplace. The program's emphasis on practical skills, strong industry connections, and commitment to research ensures its continued prominence in the field.

FAQs:

1. What are the admission requirements for the Actuarial Science program at Wits? (Answer: This varies; check the Wits University website for the most up-to-date requirements.)
2. What career paths are available to graduates of the Actuarial Science program? (Answer: Insurance, finance, consulting, government, and more.)
3. Are there scholarship opportunities available for Actuarial Science students? (Answer: Yes, check the Wits financial aid website.)
4. What software and tools are used in the program? (Answer: A range of actuarial software packages and programming languages.)
5. How does the program prepare students for professional exams? (Answer: Integrated study support and resources.)
6. What is the program's placement rate? (Answer: High, with strong industry connections.)
7. Is there a focus on sustainability or ESG within the curriculum?

(Answer: Increasingly, yes, reflecting industry trends.)

8. What are the research opportunities available to students? (Answer: Numerous opportunities within ongoing faculty research projects.)
9. How international is the student body? (Answer: The program attracts students from around the world.)

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study. Students feature prominently through their political activities, the flourishing of a student intelligentsia, the heyday of the Remember and Give (Rag) parade, rugby intervarsity, and the stunning success of Wits sportsmen and women. WITS: The 'Open' Years paints a vivid picture of the range of personalities who enlivened the campus – among them some well-known figures in the new South Africa. The book includes chapters by Alf Stadler, who was Professor of Political Studies at Wits and the author of *The Political Economy of Modern South Africa*, and Jonty Winch, former Sports Officer at Wits and the author of *Wits Sport*.

actuarial science at wits: CR Magazine Club Readership,

actuarial science at wits: A Learner's Guide To Academic Success Mafule Morelearn Moswane, 2016-11-21 A Learners Guide to Academic Success is an inspirational and motivational guidebook for school learners in primary and secondary school. This book is highly recommended for high school learners from Grade 8 all the way to Grade 12. This book is also a useful tool for teachers and parents as they can read and share the message with their learners/children. Mafule is passionate about education and spends most of his time participating and running FBA projects such as career guidance, motivation sessions and mentorship in high schools and tertiary institutions in South Africa. Mafule has visited many schools across South Africa to encourage the culture of reading and academic excellence to thousands of learners as a way to help young people access higher levels of education. The schools that have been adopted under FBA have been performing very well and the learners have been able to access post-school opportunities. It is for those reasons that this book is written, to reach out to many young people of South Africa who need an inspirational voice. This inspirational and motivational guide book is a must read for all learners in South Africa who will like to achieve academic success.

actuarial science at wits: WITS: The Early Years Bruce Murray, 2022-09 Examining the historical foundations, the struggle to establish a university in Johannesburg, and the progress of the University in the two decades prior to World War II, historian Bruce Murray captures the quality and texture of life in the early years of Wits University and the personalities who enlivened it and contributed to its growth.

actuarial science at wits: *The History of Actuarial Science Vol I* Steven Haberman, Trevor A. Sibbett, 2024-10-28 A book which covers the key period in the history of actuarial science from the mid-17th century to the early 19th century. There are reprints of the most important treatises, pamphlets, tables and writings which trace the development of the actuarial industry.

actuarial science at wits: *A GUIDE TO BEING AN EXTRAORDINARY STUDENT* Jeremia Lelosa, Mahlodi Kgatle, Morongwa Maifo, Sibusiso Gama, Treasure Mokalapa, Tieho Hans, 2017-03-04 This is an inspirational and motivational book for students at University and/or College, as well as those who have aspirations of furthering their studies at university and/ or college, post-matric. The contributors from various institutions of higher learning in South Africa share their secrets to success in this collection of experiences. The contributors share their philosophies of success: they share strategies they have employed which managed to assist them in graduating. Students, in particular, junior students, will benefit immensely from the comprehensive coverage of core study skills and learning strategies presented in a straightforward and relatable manner. The book also helps students avoid academic exclusion and inspires them to achieve academic excellence. However, this book does not only cover academic success. It also covers leadership and entrepreneurship which are necessary elements in today's fast and changing world. Unlike any other student success guide books that are currently on the market, this book is unique and offers a broad perspective from many students. Again, the book is written by people with a lived experience. It offers an insider view. This book was written by leaders of Faculty of Best Advisory-FBA, published and is distributed by Club Readership.

actuarial science at wits: Financial Mail , 2005

actuarial science at wits: Ecunews , 1989

actuarial science at wits: Genius Bruce Whitfield, 2023-03-01 South Africa and its fraught political economy provide a fascinating case study into how it takes a particular brand of genius to

thrive in a difficult domestic environment and to take the ideas and the businesses that deliver them from local to global. Genius tells the stories of some of the extraordinary individuals, companies and industries whose ideas, products and raw materials solve problems and add value across the globe. Greatness comes from acting on purpose, and there is a generation of South Africans solving problems for the future. Learn how Pratley beat Armstrong to the moon, how a former Eskom quantity surveyor capitalised on Britain's obsession with meerkats to create the UK's most visible price comparison website, how to take a Mediterranean-style food concept to the Mediterranean, and how a device designed to beat diamond smuggling made it from the set of a popular US hospital drama into emergency rooms and pathology labs across the US. Genius examines what it takes to thrive in an increasingly complex, fast-paced and divisive global environment. These are lessons for anyone looking to succeed anywhere against the odds.

actuarial science at wits: Stochastic Processes and Their Applications Frank Beichelt, L. Paul Fatti, 2001-10-18 This book introduces stochastic processes and their applications for students in engineering, industrial statistics, science, operations research, business, and finance. It provides the theoretical foundations for modeling time-dependent random phenomena encountered in these disciplines. Through numerous science and engineering-based examples and exercises, the author presents the subject in a comprehensible, practically oriented way, but he also includes some important proofs and theoretically challenging examples and exercises that will appeal to more mathematically minded readers. Solutions to most of the exercises are included either in an appendix or within the text.

actuarial science at wits: Introstat Les Underhill, Dave Bradfield, 1996-12-31 An introduction to applied statistics, this text assumes a basic understanding of differentiation and integration.

actuarial science at wits: Drum , 2005

actuarial science at wits: Advances in Econometrics, Operational Research, Data Science and Actuarial Studies M. Kenan Terzioğlu, 2022-01-17 This volume presents techniques and theories drawn from mathematics, statistics, computer science, and information science to analyze problems in business, economics, finance, insurance, and related fields. The authors present proposals for solutions to common problems in related fields. To this end, they are showing the use of mathematical, statistical, and actuarial modeling, and concepts from data science to construct and apply appropriate models with real-life data, and employ the design and implementation of computer algorithms to evaluate decision-making processes. This book is unique as it associates data science - data-scientists coming from different backgrounds - with some basic and advanced concepts and tools used in econometrics, operational research, and actuarial sciences. It, therefore, is a must-read for scholars, students, and practitioners interested in a better understanding of the techniques and theories of these fields.

actuarial science at wits: Solid State Chemistry Elaine A. Moore, Lesley E. Smart, 2020-08-03 A comprehensive guide to solid-state chemistry which is ideal for all undergraduate levels. It covers well the fundamentals of the area, from basic structures to methods of analysis, but also introduces modern topics such as sustainability. Dr. Jennifer Readman, University of Central Lancashire, UK The latest edition of Solid State Chemistry combines clear explanations with a broad range of topics to provide students with a firm grounding in the major theoretical and practical aspects of the chemistry of solids. Professor Robert Palgrave, University College London, UK Building a foundation with a thorough description of crystalline structures, this fifth edition of Solid State Chemistry: An Introduction presents a wide range of the synthetic and physical techniques used to prepare and characterise solids. Going beyond this, this largely nonmathematical introduction to solid-state chemistry includes the bonding and electronic, magnetic, electrical, and optical properties of solids. Solids of particular interest—porous solids, superconductors, and nanostructures—are included. Practical examples of applications and modern developments are given. It offers students the opportunity to apply their knowledge in real-life situations and will serve them well throughout their degree course. New in the Fifth Edition A companion website which offers accessible resources for students and instructors alike, featuring topics and tools such as

quizzes, videos, web links and more A new chapter on sustainability in solid-state chemistry written by an expert in this field Cryo-electron microscopy X-ray photoelectron spectroscopy (ESCA) Covalent organic frameworks Graphene oxide and bilayer graphene Elaine A. Moore studied chemistry as an undergraduate at Oxford University and then stayed on to complete a DPhil in theoretical chemistry with Peter Atkins. After a two-year postdoctoral position at the University of Southampton, she joined the Open University in 1975, becoming a lecturer in chemistry in 1977, senior lecturer in 1998, and reader in 2004. She retired in 2017 and currently has an honorary position at the Open University. She has produced OU teaching texts in chemistry for courses at levels 1, 2, and 3 and written texts in astronomy at level 2 and physics at level 3. She was team leader for the production and presentation of an Open University level 2 chemistry module delivered entirely online. She is a Fellow of the Royal Society of Chemistry and a Senior Fellow of the Higher Education Academy. She was co-chair for the successful Departmental submission of an Athena Swan bronze award. Lesley E. Smart studied chemistry at Southampton University, United Kingdom. After completing a PhD in Raman spectroscopy, she moved to a lectureship at the (then) Royal University of Malta. After returning to the United Kingdom, she took an SRC Fellowship to Bristol University to work on X-ray crystallography. From 1977 to 2009, she worked at the Open University chemistry department as a lecturer, senior lecturer, and Molecular Science Programme director, and she held an honorary senior lectureship there until her death in 2016. At the Open University, she was involved in the production of undergraduate courses in inorganic and physical chemistry and health sciences. She served on the Council of the Royal Society of Chemistry and as the chair of their Benevolent Fund.

actuarial science at wits: *Chemistry of the Environment* Thomas G. Spiro, Kathleen L. Purvis-Roberts, William M. Stigliani, 2020-11-15

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actuarial science at wits: *Fostering Long-Term Sustainable Development in Africa* David Mhlanga,

actuarial science at wits: *Dance of the Dung Beetles* Marcus Byrne, Helen Lunn, 2019-04-01 The sweeping scientific and social history of the humble dung beetle The humble and industrious dung beetle is a marvelous beast: the 6,000 species identified so far are intricately entwined with human history and scientific endeavor. These night-soil collectors of the planet have been worshipped as gods, worn as jewelry, and painted by artists. More practically, they saved Hawaii from ecological blight, and rescued Australia from plagues of flies. They fertilize soil, cleanse pastures, steer by the stars, and have a unique relationship with the African elephant (along with many other ungulates). Above all, they are the ideal subject for biological study in an evolving world. In this sweeping history of more than 3,000 years, beginning with Ancient Egypt, scientist Marcus Byrne and writer Helen Lunn capture the diversity of dung beetles and their unique behavior patterns. Dung beetles' fortunes have followed the shifts from a world dominated by a religion that symbolically incorporated them into some of its key concepts of rebirth, to a world in which science has largely separated itself from religion and alchemy. With over 6,000 species found throughout the world, these unassuming but remarkable creatures are fundamental to some of humanity's most cherished beliefs and have been ever present in religion, art, literature, science and the environment. They are at the center of current gene research, play an important role in keeping our planet healthy, and some nocturnal dung beetles have been found to navigate by the starry skies. Outlining the development of science from the point of view of the humble dung beetle is what makes this charming story of immense interest to general readers and entomologists alike.

actuarial science at wits: *Using the ODP Bootstrap Model* Mark R. Shapland, 2016

actuarial science at wits: *Kaleidoscope* Barbara Erasmus, 2012-10-01 They think I'm perfect when they see me. I cry on cue. I move my arms and legs. My fingers and my toes both add up to ten. Their specialists tick all the columns on their rating scale. They won't find out. None of the tests

they run will show my secret. My subtle imperfection will complicate the lives of everyone who loves me.' Kaleidoscope describes the impact of an autistic child on the already stressed relationship between two very different sisters. Claire's an actuary. Kate's an actor. Each is secretly resentful of what the other has achieved. It takes the birth of a complicated baby to show them what they have in common.

actuarial science at wits: The A to Z of Careers in South Africa , 2006

actuarial science at wits: Applied Operational Research Kaveh Sheibani, 2010-08-25 These proceedings gather contributions presented at the 2nd International Conference on Applied Operational Research (ICAOR 2010) in Turku, Finland, August 25-27, 2010, published in the series Lecture Notes in Management Science (LNMS). The conference covers all aspects of Operational Research and Management Science (OR/MS) with a particular emphasis on applications.

actuarial science at wits: The Language Instinct Steven Pinker, 2010-12-14 A brilliant, witty, and altogether satisfying book. — New York Times Book Review The classic work on the development of human language by the world's leading expert on language and the mind In *The Language Instinct*, the world's expert on language and mind lucidly explains everything you always wanted to know about language: how it works, how children learn it, how it changes, how the brain computes it, and how it evolved. With deft use of examples of humor and wordplay, Steven Pinker weaves our vast knowledge of language into a compelling story: language is a human instinct, wired into our brains by evolution. *The Language Instinct* received the William James Book Prize from the American Psychological Association and the Public Interest Award from the Linguistics Society of America. This edition includes an update on advances in the science of language since *The Language Instinct* was first published.

actuarial science at wits: The Global Trade Slowdown Cristina Constantinescu, Aaditya Mattoo, Michele Ruta, 2015-01-21 This paper focuses on the sluggish growth of world trade relative to income growth in recent years. The analysis uses an empirical strategy based on an error correction model to assess whether the global trade slowdown is structural or cyclical. An estimate of the relationship between trade and income in the past four decades reveals that the long-term trade elasticity rose sharply in the 1990s, but declined significantly in the 2000s even before the global financial crisis. These results suggest that trade is growing slowly not only because of slow growth of Gross Domestic Product (GDP), but also because of a structural change in the trade-GDP relationship in recent years. The available evidence suggests that the explanation may lie in the slowing pace of international vertical specialization rather than increasing protection or the changing composition of trade and GDP.

actuarial science at wits: Katrina and Other Untold Stories Mafule Morelearn Moswane, 2016-11-21 *Katrina and Other Untold Stories* is the juxtaposition of morally neutral non-fictional, fictional, comical, inspirational, socio-economic and political stories put together in a single collection. This book challenges conventional wisdom by offering a different perspective through the stories narrated in a unique and interesting style. It is the first of its own kind to afford a reader to engage in complex debates delivered through a conversational manner. The book exposes the reader to ideologies which include but not limited to patriarchy, feminism, sexism, class struggle, African belief system, Christianity and indigenous knowledge. This significant contribution to African literature is written in the context of Africa. The readership will not only be captivated by the stories, they will also be empowered, liberated and intellectually stimulated to the core. The language used in the book is easy to understand even for the first time readers.

actuarial science at wits: Guidance in the Classroom Niels Lindhard, 1987 This text is designed to give student teachers, as well as in-service teachers, guidance material which can help their students to explore and discover their individual abilities, aptitudes and personalities.

actuarial science at wits: Advances in Operations Research Education Jeroen Beliën, Ana Paula Teixeira, Hans W. Ittmann, João Luís de Miranda, Marco Laumanns, Margarida Vaz Pato, 2018-02-16 This edited monograph contains a comprehensive overview of educational developments in the fields of operations research (OR) and management science (MS). The book outlines key

factors in OR/MS curricular programs and analyses different approaches regarding student enrollment and failure rates. The approach is genuinely international, whereas the focus lies on the European level. The target audience primarily comprises public policy planners in education, deans and school directors as well as program coordinators.

actuarial science at wits: Applied Bioinformatics Paul Maria Selzer, Richard Marhöfer, Andreas Rohwer, 2008-01-18 At last, here is a baseline book for anyone who is confused by cryptic computer programs, algorithms and formulae, but wants to learn about applied bioinformatics. Now, anyone who can operate a PC, standard software and the internet can also learn to understand the biological basis of bioinformatics, of the existence as well as the source and availability of bioinformatics software, and how to apply these tools and interpret results with confidence. This process is aided by chapters that introduce important aspects of bioinformatics, detailed bioinformatics exercises (including solutions), and to cap it all, a glossary of definitions and terminology relating to bioinformatics.

actuarial science at wits: Sets, Logic and Maths for Computing David Makinson, 2012-02-27 This easy-to-follow textbook introduces the mathematical language, knowledge and problem-solving skills that undergraduates need to study computing. The language is in part qualitative, with concepts such as set, relation, function and recursion/induction; but it is also partly quantitative, with principles of counting and finite probability. Entwined with both are the fundamental notions of logic and their use for representation and proof. Features: teaches finite math as a language for thinking, as much as knowledge and skills to be acquired; uses an intuitive approach with a focus on examples for all general concepts; brings out the interplay between the qualitative and the quantitative in all areas covered, particularly in the treatment of recursion and induction; balances carefully the abstract and concrete, principles and proofs, specific facts and general perspectives; includes highlight boxes that raise common queries and clear confusions; provides numerous exercises, with selected solutions.

actuarial science at wits: Reporter , 2000

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actuarial science at wits: *The Insurance gazette, and provident societies' chronicle* , 1881

actuarial science at wits: *The Education Triple Cocktail* Brahm Fleisch, 2018-08-15 The Education Triple Cocktail brings together rigorous quantitative and qualitative research on a new approach to improving foundational teaching and learning for schoolchildren living in working-class, poor and remote rural communities in resource-constrained systems like South Africa. At the core of this book is the theory and evidence for a powerful, new, interlocking and mutually reinforcing change model. Inspired by the AIDS treatment story, the three-pronged approach of structured daily lesson plans, appropriate and high-quality educational materials, and one-on-one instructional coaching to help teachers transform their instructional practices in early grade classrooms, shows

that it will improve learning outcomes. For education systems defined by low levels of early grade learning and profoundly unequal outcomes, The Education Triple Cocktail offers a theoretically informed, evidence-based way forward. This book will be of immense use to teachers, students of Education, policymakers and parents.

actuarial science at wits: The Theory That Would Not Die Sharon Bertsch McGrayne, 2011-05-17 This account of how a once reviled theory, Bayes' rule, came to underpin modern life is both approachable and engrossing (Sunday Times). A New York Times Book Review Editors' Choice Bayes' rule appears to be a straightforward, one-line theorem: by updating our initial beliefs with objective new information, we get a new and improved belief. To its adherents, it is an elegant statement about learning from experience. To its opponents, it is subjectivity run amok. In the first-ever account of Bayes' rule for general readers, Sharon Bertsch McGrayne explores this controversial theorem and the generations-long human drama surrounding it. McGrayne traces the rule's discovery by an 18th century amateur mathematician through its development by French scientist Pierre Simon Laplace. She reveals why respected statisticians rendered it professionally taboo for 150 years—while practitioners relied on it to solve crises involving great uncertainty and scanty information, such as Alan Turing's work breaking Germany's Enigma code during World War II. McGrayne also explains how the advent of computer technology in the 1980s proved to be a game-changer. Today, Bayes' rule is used everywhere from DNA de-coding to Homeland Security. Drawing on primary source material and interviews with statisticians and other scientists, *The Theory That Would Not Die* is the riveting account of how a seemingly simple theorem ignited one of the greatest controversies of all time.

actuarial science at wits: Calculus for Business, Economics, and the Social and Life Sciences Laurence D. Hoffmann, 2007-06-01 Calculus for Business, Economics, and the Social and Life Sciences introduces calculus in real-world contexts and provides a sound, intuitive understanding of the basic concepts students need as they pursue careers in business, the life sciences, and the social sciences. The new Ninth Edition builds on the straightforward writing style, practical applications from a variety of disciplines, clear step-by-step problem solving techniques, and comprehensive exercise sets that have been hallmarks of Hoffmann/Bradley's success through the years.

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2021-05-04 A magical coming-of-age tale in rural Zimbabwe Ah, you've arrived. Sit down, please, and make yourself comfortable. There may not be much dinner tonight – Father is still out of work; Mother can't do anything with those stunted maize plants in the stony ground – but at least you are here, in Gushure Village, home to unsurpassed raconteurs and the Guramatunhu family, who know that telling stories staves off hunger. Surprise awaits at every turn: thoughts and conversations bloom into poems, political speeches and songs. You will find instructions for cooking a hare, for how to defend yourself when a dead snake is your enemy's chosen weapon, how to speak in war tongues, how to compose a fist and aim it at a tree trunk, how to eliminate animal terrorism in a time of rabies, how to rehearse the body-viewing of a good-looking corpse, how to rock under flying okapis with The Double Shuffle, and how to practise your lovemaking technique on a woman drawn in the sand. At a time when cooked ants constitute a feast, the future nevertheless holds abundant prospects for the boy who devours words. But there is an unexpected fork in the road for this book louse, and plenty of wondrous twists and shocking turns. Hilarious, poetic and poignant, Robert Muponde's vibrant coming-of-age story of Ronald Guramatunhu brings to life rural Zimbabwe from the Second Chimurenga to independence. There are malevolent mermaids, eccentric shamans, outrageous relatives, fearsome teachers, and men who transform into hippos in a tale that captures all the magic of childhood.

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and on foot. When he reached Johannesburg, 18 months after fleeing Sudan, he was determined to resume his education. He managed to complete his schooling with the help of Catholic missionaries and entered medical school, qualifying as a doctor, and eventually specialising in pulmonology. Emmanuel's skills and dedication as a physician, and his stubborn refusal to be discouraged by setbacks, led to an important discovery in the treatment of hypoxaemic COVID-19 patients. By never giving up, this son of South Sudan has risen above extreme poverty, racism and xenophobia to become a South African and African legend. This is his story.

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