Muhammad Al-Zafar Khan

Flat 2 Lagoon Heights, 3 First Avenue, Isipingo Beach, Durban, South Africa, 4115

LinkedIn: https://www.linkedin.com/in/muhammad-al-zafar-khan-5ab19310b

Mobile: +27799 7527 98   **Email:** muhammadalzafark@gmail.com

---

Qualifications

2011 – 2014: Bachelor of Science (BSc.) degree majoring in Pure Mathematics and Applied Mathematics with a minor in Chemical Engineering at the University of KwaZulu-Natal.

2015: Bachelor of Science Honours (BSC. Hons.) degree in Applied Mathematics, completed *cum laude*, at the University of KwaZulu-Natal.

2016: Master of Science (MSc.) degree in Applied Mathematics, completed *cum laude*, at the University of KwaZulu-Natal.

Current: Pursuing a Doctor of Philosophy (PhD.) degree in Applied Mathematics / Theoretical Physics at the University of KwaZulu-Natal.

Employment History

June 2013 – July 2013: Engineering vacation work at Lubrizol South Africa.

January 2017 – December 2017: Quantitative Analysis graduate trainee at the Standard Bank Group of South Africa.

January 2018 – June 2018: Models Risk manager within the Group Internal Audit Team (GIA) at the Standard Bank Group of South Africa.

July 2018 – February 2020: Data Scientist at MicroMega / Sebata Utility Systems.

Skills and Expertise

- ✓ Machine Learning
- ✓ Artificial Neural Networks
- ✓ Business Informatics
- ✓ Data Science
- ✓ Business Analytics
- ✓ Mathematical Modeling
- ✓ Model Building
- ✓ Data Extraction, Manipulation, Wrangling and Mining
- ✓ SQL and Databases Administration
- ✓ Bayesian Statistics
- ✓ Artificial Intelligence
- ✓ Network Security
- ✓ Inferential Statistics
- ✓ Public Speaking and Presenting
- ✓ Python
- ✓ R
- ✓ Wolfram Mathematica
- ✓ Maple
- ✓ Matlab
- ✓ Research
- ✓ 4IR Engagement

- ✓ Team Work
- ✓ Critical Thinking
- ✓ Financial Engineering and Mathematics of Finance
- ✓ Project Management
- ✓ Intellectual Curiosity
- ✓ Advanced Mathematics
- ✓ Data Visualization
- ✓ Communication
- ✓ Advanced Physics

Key Accomplishments

1. Matriculated with the highest marks in my district at the end of high school.
2. Received the highest mark as an honours student for the academic year 2015 within the School of Maths, Stats and Computer Science at the University of KwaZulu-Natal.
3. Best honours project for the academic year 2015 within the School of Maths, Stats and Computer Science at the University of KwaZulu-Natal.
4. Invited member of the Golden Key Society.
5. National Research Foundation (NRF) Scarce Skills Scholarship holder for the academic year 2016.
6. Built machine learning models for 22 municipalities in South Africa, which assisted in fault finding, volume of water losses, leakages, monetary cost of water and energy losses.

Certifications

- ➢ IBM Data Science
- ➢ Azure Machine Learning
- ➢ Advanced SQL for Data Scientists
- ➢ Algorithmic Trading
- ➢ Python 3
- ➢ TensorFlow

Conferences

2016: South African Gravity Society (SAGS). Proceedings: *Exact Barotropic Solutions in Einstein-Gauss-Bonnet Gravity*.

2018: South African Gravity Society (SAGS). Proceedings: *New Models for Relativistic Stars in 5D Gravity.*

2019: Institute for Municipal Engineering of South Africa (IMESA). Proceedings: *Smart Water Management - A Data Science Approach.*

References

1. Gregory Newnham – Graduate Manager at the Standard Bank Group of South Africa: +2711 631 6016 / Gregory.Newnham@standardbank.co.za
2. Elvera Van Wyk – Head of Model Risk Audit at the Standard Bank Group of South Africa: +2782 921 8669 / Elvera.Vanwyk@standardbank.co.za
3. Darren Oxlee – Former Chief Technology Officer (CTO) at Utility Systems, currently a Manager in Microsoft New Zealand: +6421 720 925 / darrenoxlee@hotmail.com