

VUKOSI HECTOR MATHONSI



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SUMMARY

Dedicated BSc Mathematical Science student specializing in Mathematical Statistics and Computer Science at the University of Johannesburg. Skilled in data analysis, programming, and statistical modeling, with a passion for Data Science, Machine Learning, and Artificial Intelligence. Proficient in R, SQL, and Python, with a strong foundation in problem-solving and delivering data-driven insights.

EDUCATION

University of Johannesburg

BSc Mathematical Science in Mathematical Statistics and Computer Science

2021 – Present

- Pursuing a Bachelor's Degree in Mathematical Science with a focus on Mathematical Statistics and Computer Science.
- Engaged in coursework covering Calculus, Linear Algebra, Statistics, and Computer Science.
- Developing skills in data science, machine learning, software engineering, and statistical analysis.

WeThinkCode_

Computer Software Engineering

2021 – 2022

- Completed 1st year coursework in programming fundamentals, object-oriented programming, and software engineering.
- Gained hands-on experience with Python and Java, including knowledge of OAuth, REST APIs, unit testing, and configuration files.
- Worked on group projects involving client-server architecture, network programming, and multi-user systems.
- Developed skills in team collaboration, agile methodologies, and presentation.

Tembisa Secondary School

Bachelor's Pass, Science Stream

2016 – 2020

EXPERIENCE

Quantitative Analysis Intern

Quantify Your Future · Internship

Jan 2025 - Feb 2025 · Randburg, Gauteng, South Africa · Remote

During the QYF Internship, I engaged in a series of expert-led sessions covering key topics in finance, risk management, and data analytics. These included:

- Business & Critical Skills – Banking, strategic thinking, problem-solving, and collaboration.
- Data Analytics & Modeling – Data cleaning, model building, and visualization.
- Professional Development – Career insights, communication, and executive leadership talks.

I then applied these skills in real-world case studies from leading financial institutions:

- **Nedbank:** Operational, liquidity, and credit risk analysis using statistical techniques.
- **FNB:** Evaluating credit risk models through exploratory data analysis and performance metrics.
- **ABSA:** Developing predictive models to assess customer default risk.
- **Standard Bank:** Designed a proof-of-concept ML model to improve digital engagement and product adoption.

Quantitative Analysis – FirstRand Summer School

FirstRand · Seasonal

Dec 2024 · City of Johannesburg, Gauteng, South Africa · On-site

- Participated in the FirstRand Summer School (Quants Group), where I worked collaboratively on a real-world Fraud Detection Project addressing Mule Fraud in the banking sector.
- Conducted exploratory data analysis (EDA), model testing, and research using transactional data to develop a Classification Tree Model for fraud detection.
- Collaborated with a multidisciplinary team from backgrounds in Actuarial Science, Statistics, Mathematics, and Computer Science to solve complex problems.
- Gained hands-on experience with quantitative analysis and insights into financial services, enhancing problem-solving and teamwork skills.
- Delivered project results to senior leaders, showcasing the solution's application to detect fraud in real time.

CERTIFICATIONS

Accenture North America Data Analytics and Visualization Job Simulation on

Forage - October 2024

- Completed a simulation focused on advising a hypothetical social media client as a Data Analyst at Accenture
- Cleaned, modelled and analyzed 7 datasets to uncover insights into content trends to inform strategic decisions
- Prepared a PowerPoint deck and video presentation to communicate key insights for the client and internal stakeholders

Problem Solving (Intermediate)

HackerRank

Issued Mar 2022

Data Structures and Algorithms in Python

Jovian

Issued Apr 2022

Scientific Computing with Python

freeCodeCamp

Issued Dec 2021

Ultimate Java Course

Code With Mosh

Issued Aug 2024

SKILLS

- Data Analysis and Visualization
- Statistical Modeling
- Network Programming
- Programming (Java, C++, R, Python)
- Web Development (HTML, CSS, JavaScript)