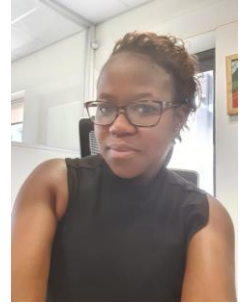


Onthatile Mathekga

Mathematical Scientist

076 899 0139 | onthatile.mathekga@outlook.com



I am a passionate Data Scientist who holds a Degree in Mathematical Science from University of Johannesburg and currently specializing in advanced research and application of data mining and machine learning algorithms to meet business strategies.

I am a key member of a team of Data Scientists who developed the 1st machine learning based ESG (Environmental, Social & Governance) rating model for all 380 JSE listed companies. In this journey I applied my knowledge of Basel rating models, R & python skills, research ability and most importantly teamwork to meet the very tight deadlines for the Launch of the ESG model. At the same time I volunteered to work as the office manager at Risk Insights with all finance and admin staff reporting to me to as the office manager had resigned unexpectedly due to personal family matters (I still do the double work to date!).

Experience

Data Scientist Risk Insights

Present

- Key team member in the team that created the 1st machine learning based ESG Model for rating JSE listed companies in South Africa.
- Development of AI based machine learning (ML) models for various sectors (Banks, mining...etc.)
- Proficient in using different ML algorithms per models (Naïve Bayes, extra trees classifier etc.)
- Using Natural Language Processing (Lemmatization, tokenization, td-idf algorithm) to create numerical factors from pdfs and web scrapped data.
- Used a word cloud to extract key words for use in models from SA legislation.
- Proficient at Web Scraping news feeds with a filter
- Validated the PD, LGD, EAD and pricing models used in our SME lending business.
- Responsible for the Finance and Administration of the office as the Office manager.

Data Analyst (Intern) WesBank

2018/07 - 2019/07

- Understand project objectives
- Identify source system big data
- Retrieve and clean big data files using R
- Analyse and interpret big data files using R

- Identify patterns and trends in data sets using the statistical function in R
- Assist with development of Basel II advanced PD, LGD and EAD models with R Studio.
- Use of R in the Single factor analysis (SFA) stage and in the Multifactor factor analysis (logistic regression) and calibration stages.
- Adhoc analysis and report writing to senior management.

Volunteer University of Johannesburg *2017/03 - 2017/11*

- Tutor Grade 12 Mathematics
- Data capturing (Helen Joseph Hospital)
- Document administration (Helen Joseph Hospital)

Sales Consultant Celcom Group

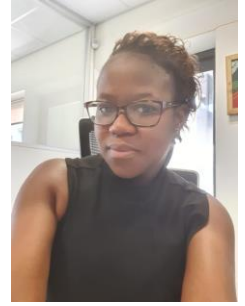
2018/03 - 2018/07

- Sell cellphone products to companies like MTN and Vodacom
- Reconcile promotion objectives and results
- Place orders for customers
- Receive and resolve inbound calls (call center)

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Vacation Work

Tshoane Fresh Produces

2016/11 – 2017/02

- Welcome customers
- Receive cash payments
- Check daily cash accounts

Report writing



Power BI



SAS



References available on request

Education

First Job Training

Gordon Institution of Business Science

2018/08 – 2019/05

FirstRand Youth Development Graduate Programme

B.Sc. Mathematical Science

University of Johannesburg

2014/01 – 2017/11

Subjects: Computer Science, Calculus, Linear Algebra, Applied Mathematics, Statistics, Real Analysis, Logic and Discrete, Complex, Analysis, Abstract Algebra, Life Skills for Science

Senior Certificate

Holy Trinity Secondary

2008/01 – 2013/12

Subjects: **Mathematics(Distinction)**, Sestwana, English, Physical Science, Life Science, Geography, Life Orientation

Skills

Python



R Studio



SQL



Microsoft Azure



Microsoft Word & Excel

