Donald Zvada

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Profile

Currently is a committed master's student at s (AIMS) South Africa/Stellenbosch University. I hold a Bachelor's Honours degree in Operations Research and Statistics from the National University of Science and Technology in Zimbabwe, with a strong foundation in data-driven problem-solving. My current research focuses on assessing the ability of Large Language Models to solve sequential decision-making problems.

Professional Experience

12/2023 - 08/2024 Quantitative Risk Analyst

Harare, Zimbabwe EY Zimbabwe

Credit risk model development and validation for clients to ensure they are compliant

with IFRS 9 Standard.

PD, LGD, EAD & MEV models

-IFRS9 Model Validation and review support on audit assignments

-Development, implementation or review of IFRS 9 frameworks/systems/tools.

2021 – 2022 **Intern**

Harare, Zimbabwe EcoCash Holding

Reporting Analyst, Product Solutions and Operations management

Preparation reports, Product testing (dev environment ~beta tests), scheduling, data analysis, competitor analysis, meetings presentations, sharing quotations, customer queries, data entry,data cleaning, data analysis,data exploration ~visualizations

(Microsoft Excel and PowerBI

Education

09/2024 - 07/2025 Msc, Mathematical Sciences

Capetown, South Africa AIMS (South Africa), Stellenbosch University

Pure Mathematics, Physics, Statistics, ML

2019 – 2023 Bsc Hons in Operations Research and Statistics

Bulawayo, Zimbabwe National University of Science and Technology

1st Division (Overall Best graduating male student, class of 2023)

2017 - 2018 High School

Centenary High School

Pure Mathematics, Statistics, Economics & Geography

Awards

09/2024 MasterCard Foundation Scholarship

MasterCard Foundation
Fully sponsored scholarship

2023 Emmerson Dambudzo Mnangagwa Chancellor's Award

President and Cabinet Office

NUST overall best graduating male student for the class of 2023

2023 Vice Chancelor's Award

National University of Science and Technology

Overall best graduating student in the department of Operations Research and Statistics

2023 Moonlight Award for the Best Graduating Student

Moonlight Zimbabwe

Overall best graduating student in the Faculty of Applied Sciences

2021 Nust Book Prize

National University of Science and Technology

Best student in the department 2021 and 2023 calendar years

Masters Project

03/2025 - 06/2025

Assessing the ability of Large Language Models to solve sequential decision making problems

Assess and characterise the ability of Large LanguageModels (LLMs) to solve sequential decision-making problems, with a focus on the Multi-Armed Bandit (MAB) problem. **Supervisor:** Prof Audrey Durand (Université Laval, Canada)

Workshops and Certificates

06/2025 - 08/2025

Key relay protocol for quantum key distribution

Sendai, Japan

The Research in Industrial Projects for Students (RIPS) program has been held at the Institute for Pure & Applied Mathematics (IPAM) of the UCLA, AIMR at Tohoku University in Sendai launched the g-RIPS-Sendai program in collaboration with IPAM, targeting graduate-level students in mathematical science and related disciplines.

Cape Town, South Africa Africa Scientifique Workshop
Science Communication skills

AREAS OF EXPERTISE

• Research

- Machine Learning Models
- Data Science

- Quantitative Risk Analysis
- IFRS9 Models Auditing
- Credit Control

- Power BI, R, SPSS, MS Office
- Monitoring and Evaluation

Software

Python

PowerBI

R Studio

Modular Programming

Microsoft ToolsExcel, PowerPoint, etc

Dashboards and Analysis

Git/ Github

Macaulay2

https://github.com/Donniezvadah ☑

Cyclone (Algebraic systems biology)

Leadership Experience

2024 - present

AIMS South Africa

Cape Town, South Africa MasterCard Foundation Scholarship Student Representative

- Work closely with the Mastercard Foundation Scholars and Mastercard Foundation team
- Organise meetings
- Reporting
- Lead in giving back to the community sessions

2024 – present AIMS South Africa House of Science - outreach programme

Cape Town, Tutoring Lead

South Africa • Lead the tutoring sessions for school children

• Plan and schedule the tutorial sessions

• Mentor students

2022 – present **NUST** Zimbabwe *Tutor*

• Voluntary tutoring for NUST students Mathematics students

• Projects guidance

References

Prof Karin-Therese Howell, *Academic Director*, African Institute of Mathematical Sciences South Africa howell@aims.ac.za

Dr Mpfareleni Rejoyce Gavhi, Researcher & House of Science Manager, African Institute for Mathematical Sciences South Africa rejoyce@aims.ac.za

Dr Precious Mdlongwa, *Senior Lecturer*, NUST precious.mdlongwa@nust.ac.zw, +263712747990