

Katlego Magabane

 justb28 |  Katlego-Magabane |  k.magabane28@gmail.com |  +27 60 358 1069

SUMMARY

Computer Science and Applied Mathematics graduate with a strong foundation in software development, data analysis, and problem-solving. Experienced in building and maintaining applications through academic and practical projects, with hands-on exposure to Python, JavaScript, front-end development, and data-driven solutions. Comfortable working in collaborative, agile environments, learning new technologies quickly, and contributing to scalable, customer-focused systems.

SKILLS

Programming	Python, JavaScript, PHP, SQL, Java, C
Web Development	HTML, CSS, JavaScript, React, Tailwind CSS; frontend-focused application development
Data & Analysis	Data preprocessing, exploratory analysis, model evaluation, quantitative reasoning
Tools & Practices	Git/GitHub, debugging, basic testing concepts, version control, Overleaf
Analytical	Logical problem-solving, structured thinking, data interpretation
Communication	Technical tutoring, mentoring, presentations, report writing
Languages	English, Sesotho (Proficient); isiXhosa, isiZulu (Intermediate); French (Beginner)
Currently Exploring	Node.js, backend APIs, cloud computing fundamentals, CI/CD concepts

PROJECTS

Honours Project – Machine Learning for Pest Detection in Maize 2025

- Designed, trained, and evaluated convolutional neural network models (U-Net) for image classification using PyTorch and TensorFlow.
- Implemented data preprocessing pipelines and applied statistical analysis to assess model performance.
- Improved model accuracy through iterative experimentation, debugging, and evaluation.

Cultivate Web Application (Team Project) 2024

- Developed frontend features using JavaScript and implemented responsive user interface designs.
- Applied security measures, including input sanitisation and password hashing.
- Collaborated in a team-based development environment using version control.

Tic-tac-toe App (Team Project) 2022

- Implemented game logic and user interface components using Python.
- Focused on logical correctness, debugging, and reliability.

WORK EXPERIENCE

Science Tutor – Grahamstown Extra Lessons Mar 2025 – Nov 2025

- Provide academic support in Physical Sciences and Mathematics to high school students.
- Break down complex concepts into simple explanations, adapting strategies for different learners.

Mathematics Tutor – Rhodes University

Mar 2025 – Nov 2025

- Tutor first-year students in foundational and applied mathematics.
- Handle administrative tasks, including marking and data entry.

Box Office Operator – National Arts Festival

Jul 2025

- Sold tickets and processed payments accurately using a computerised system.
- Balanced daily sales reports and resolved technical issues under pressure.

Vacation Sub-Warden – Rhodes University

Aug 2024

- Managed guest check-in processes and coordinated housekeeping services.
- Addressed service issues, developing organisational and problem-solving skills.

EDUCATION

B.Sc. Hons in Applied Mathematics

2025

- Rhodes University, Makhanda
- Coursework: Machine Learning, Numerical Modelling, Image Processing

B.Sc. in Applied Mathematics & Computer Science

2022–2024

- Rhodes University, Makhanda
- Coursework: Data Structures & Algorithms, Mathematical Programming, Web Development & Security

National Senior Certificate

2017–2021

- Thaba Jabula Secondary School, Soweto
- Distinction learner; Top 10 in Johannesburg North District

LEADERSHIP & ACHIEVEMENTS

Golden Key International Honour Society (Top 15% Academic Excellence)

2022

Mentor, Rhodes University

2024

Media Officer, Rhodes University Chamber Choir

2022

Top Academic Student, Graham House

2022

Drostdy Hall First-Year Academic Award

2022

Top 10 Learner, Johannesburg North District

2021

REFEREES

Prof. Marcel Atemkeng

Rhodes University – Dept. of Mathematics

Email: m.atemkeng@ru.ac.za

Phone: (046) 603 7447

Jessica Lubbe

Grahamstown Extra Lessons

Email: ghtextralessons@gmail.com

Phone: 073 083 9771