FURAHA KABEYA

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LinkedIn | Github

MSC CANDIDATE IN MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

EDUCATION

MSC IN MACHINE LEARNING & ARTIFICIAL INTELLIGENCE (GOOGLE DEEPMIND SCHOLAR) • 2025

Stellenbosch University, South Africa

BSC HONOURS IN BIOINFORMATICS & COMPUTATIONAL BIOLOGY • 2024

Stellenbosch University, South Africa

BSC IN COMPUTER SCIENCE • 2022

University of the Witwatersrand, South Africa

TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, C++, Java, C#
- **Machine Learning & AI:** TensorFlow, PyTorch, Scikit-learn, NLP, Reinforcement Learning, Probabilistic Modeling
- **Cloud & DevOps:** AWS (Lambda, S3, EC2), Docker
- **Web Development:** React.js, Redux, Node.js, Express.js, jQuery
- **Automation & APIs:** RESTful APIs, Zapier, Workflow Automation
- **Database Management:** PostgreSQL, MySQL
- **UI/UX & Design:** Figma, Bootstrap
- **Version Control & Collaboration:** Git, GitHub

SOFT SKILLS

- Problem-solving & critical thinking
- Time management & fast learning
- Adaptability & self-motivation
- Analytical thinking & attention to detail
- Collaboration & teamwork
- Leadership & project management

PROFILE

A creative and detail-oriented professional passionate about leveraging AI to solve real-world challenges and driving impactful innovation. With expertise in machine learning, AI automation, and software development, I thrive in fast-paced environments while ensuring efficiency, scalability, and user-centric design in all solutions. My strengths include problem-solving, project management, and AI-driven optimization, with a focus on computer vision, deep learning, and sustainable AI solutions.

EXPERIENCE

AI AUTOMATION ENGINEER • JUL 2024 – JAN 2025

Timbuk2.AI | Cape Town, South Africa

- Designed and implemented AI-driven automation solutions to optimize workflows and enhance operational efficiency.
- Developed AI-powered business solutions for scalability and data-driven decision-making.
- Integrated AI models into business workflows to improve operational efficiency.

SOFTWARE DEVELOPER • APR 2023 – JUN 2024

Timbuk2.AI | Cape Town, South Africa

- Designed and implemented front & back-end components of timbuk2's AI-powered platform, ensuring scalability and performance.
- Developed and integrated RESTful APIs, ensuring efficient data flow and system interoperability.
- Leveraged AWS services, including Lambda, S3 and EC2, to deploy scalable solutions and automate infrastructure management.
- Implemented Security Protocols and Conducted Usability Testing.

PERSONAL PROJECTS

- **Naive Bayes Spam Classifier (Python)**

  Implemented Naive Bayes from scratch to classify SMS/email messages.

- **Diabetes Predictive Healthcare Model (Python)**

  Built and trained a neural network to predict diabetes from patient medical data.

- **Sorting Algorithm Analyzer (Python)**

  Built a program to analyze and visualize sorting algorithm performance, including:

  - Merge Sort
  - Quicksort
  - Bubble Sort
  - Selection Sort
  - Insertion Sort

- **Maze Solver with BFS/DFS (Python)**

  Designed a maze generator and implemented BFS/DFS to auto-solve paths.

REFERENCES

AVAILABLE UPON REQUEST

COMPUTER SCIENCE INTERN • DEC 2021 – FEB 2022

Quantify Your Future | Remote (South Africa)

- Collected, analyzed, and interpreted large datasets for major banks (ABSA, FNB, Nedbank) to improve products.
- Used Python for data analysis and visualization, contributing to faster insights.

RESEARCH & ACADEMIC PROJECTS

HONOURS RESEARCH PROJECT – AI FOR FORESTRY ENGINEER • JUN 2024 – NOV 2024

Stellenbosch University | Stellenbosch, South Africa

- Title: The Signal and the Noise: Using AI Techniques to Find Patterns in Variation in Daily Stem Growth Data and Environmental Data in Eucalypts.
- Developed machine learning models (LSTM, Random Forest, XGBoost) to predict tree stem growth using environmental data (temperature, soil moisture, VPD).
- Applied time-series analysis, feature engineering, and imputation techniques to handle missing dendrometer data.
- Evaluated models using MAE, RMSE, R^2, MAPE, and MBE, achieving high accuracy in predicting growth trends.
- Compared AI models with traditional linear regression, demonstrating ML superiority in time-series forecasting.

STUDENT PROJECT – MOBILE APP FOR BARTER SYSTEM • FEB 2022 – NOV 2022

University of the Witwatersrand | Johannesburg, South Africa

- Developed a React Native application that enables users to swap items instead of purchasing.
- Integrated a real-time chat system to facilitate secure communication between users.
- Designed an intuitive UI/UX for accessibility, making item exchange seamless.