Nehemiah Y. Kumssa

nehemiahyoseph@gmail.com | +254706539151 | LinkedIn: Nehemiah Kumssa | GitHub: KumssaY | Portfolio

EDUCATION

Africa Nazarene University

Ongata Rongai, Kenya

B.S. in Computer Science   *Expected Graduation, July 2025*

- o **Concentrations:** Machine Learning & Data Science.
- o **Related Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Object-Oriented Programming, Statistics & Applications.

CERTIFICATIONS

- **Communication Skills for University Success** – University of Sydney (Coursera)
  Completed: October 13, 2021, 26 hours
- **Problem-Solving Skills for University Success** – University of Sydney (Coursera)
  Completed: November 29, 2021, 23 hours
- **Calculus Through Data & Modeling: Techniques of Integration** – Johns Hopkins University (Coursera)
  Completed: November 13, 2023, 4 hours
- **Startup Ideation Camp** – Africa Nazarene University & Handong Global University
  Dates: January 31 – February 2, 2024
- **Ongoing Certification:**
  - o *Machine Learning Specialization (Supervised Learning: Regression and Classification)* – Andrew Ng, DeepLearning.ai (Coursera)

EXPERIENCE

Africa Nazarene University Tech Club - Cyberene - *Ongata Rongai, Kenya*

Backend Developer (October 2024 – Present)

- Designed and deployed a Flask-based backend for a contact form, integrating automated email responses and WhatsApp group link delivery for new members.
- Managed deployment on Render, with frontend hosted on GitHub Pages, ensuring high system availability and a smooth user experience.

Africa Nazarene University Media Team - *Ongata Rongai, Kenya*

Tech Support (September 2022 – Present)

- Provided on-site and off-site technical support during school events, ensuring seamless live streaming and media operations.

Self-Initiated Projects

- ***Campus Meal Reservation System****: Developed a full-stack application using Node.js, Express, and MongoDB to streamline meal booking for students.*
- ***USSD Integration****: Integrated Africa's Talking API into a Node.js backend to enable user interaction via USSD menus.*
- ***Payment Gateway Integration****: Implemented Pesapal payment functionality in a tour guide website using Node.js and Express.*
- ***Climate Data Analysis****: Conducted data cleaning and visualization of CO_2 emissions in mangrove ecosystems using Python libraries like Pandas, Matplotlib, and Seaborn.*

- ***Visitor Management System (Ongoing)***: *Developing a digital platform for managing visitor entries at the university.*

PROJECTS

- **CO$_2$ Flux Analysis in Mangrove Ecosystems -**Conducted comparative analysis of CO$_2$ emissions in Kenyan and Sundarbans mangrove ecosystems using Python data visualization tools.
- **Traffic Trauma Puzzle Solver (Ongoing) -**Applied regression and classification models to simulate and resolve complex traffic scenarios using machine learning.
- **House Price Prediction Model (Ongoing) -**Built a regression model to predict real estate prices based on features like location and property attributes.
- **One-Variable Linear Regression Model -**Created a machine learning model to predict trends using one-variable linear regression techniques.

ACTIVITIES AND LEADERSHIP

Student Electoral Commission Representative (Computer Science)
Africa Nazarene University (April 2024 – April 2025)
> Elected delegate, representing Computer Science students in the university's electoral processes.

Startup Ideation Camp Delegate
Africa Nazarene University (January 2024 – February 2024)
> Collaborated with peers to develop innovative solutions during a startup ideation program.

SKILLS

Programming: Python, JavaScript, Node.js, Flask, React.js, Java, SQL, HTML/CSS
Data Science & Machine Learning: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Jupyter Notebooks
Tools & Platforms: Render, Firebase, Git, Visual Studio Code, Vercel, Jupyter Notebook with VS Code
Other: Technical Writing, Problem-Solving, Communication Skills