TADIWANASHE NIGEL NYAMAPFENE

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EDUCATION

Rust College **Holly Springs, MS**
Bachelor of Science in Computer Science: 4.0GPA *Expected December 2026*

Awards: EA Smith Honors Scholarship, Presidential Medallion Award (2023), CodePath x Base10 Travel Grant Recipient.
Relevant Coursework: Machine Learning and Data Science**,** Programming with Python**,** C++ Programming, Data Structures and Algorithms, Discrete Mathematics, Calculus I & II, Linear Algebra

SKILLS

Languages: Python, JavaScript, C++ | Django, Next.js, React, HTML, CSS
Technologies: TensorFlow, CNN, scikit-learn, AI, NLP| Git/GitHub| Pandas, Matplotlib, Seaborn, NumPy| Firebase, MySQL

EXPERIENCE

Tufts University **Medford, MA**
Machine Learning Research Assistant June 2024-August 2024

- Developed an image classification model using TensorFlow and CNN to distinguish between aircraft variants and achieved an **accuracy of 80.14%** on a dataset of **10,000** images of aircraft using Google Colab and GPU Clusters.
- Performed comparative analysis between Traditional Machine Learning and Optimal Transport, demonstrating that Traditional Machine Learning achieved greater accuracy and less time for model training and testing for this task.
- Gained data analysis and visualization skills by plotting training and validation loss during training and testing, effectively measuring and evaluating the model's performance using tools which include Seaborn, Matplotlib, and NumPy.

Headstarter AI **Remote**
Software Engineering Fellowship July 2024-August 2024

- Built and deployed 4 AI projects in 5 weeks using React.js, Next.js, Firebase, Clerk, and Vercel with weekly sprints and incorporated CI/CD practices for iterative deployment.
- Collaborated with 3 fellows to build an interactive customer support agent using Next.js. Implemented OpenAI to enable the agent to respond based on the company's knowledge base.
- Developed an educational flashcard application using React.js and implemented OpenAI to generate adaptive flashcards that adjust difficulty-based on user performance, optimizing learning outcomes.

Rust College **Holly Springs, MS**
Math and Computer Science Tutor August 2023-April 2024

- Conducted personalized tutoring sessions in Math and Physics, helping more than **25 students** improve their grades by an average of **20%.**
- Developed and implemented tailored study plans for students across **3 subjects**, resulting in average grade improvement on final examinations.

PROJECTS

Smart Pantry https://github.com/n1gek/thepantry.git

- Engineered a full-stack smart pantry application using React, Next.js, Material UI, and Firebase, to enable users' seamless grocery management with real-time updates.
- Leveraged OpenAI API to implement a recipe suggestion feature based on available selected ingredients.

RemoTutor Chatbot

- Engineered a real-time tutoring chatbot using Django, JavaScript, and HTML/CSS, enhancing tutoring efficiency for students who prefer virtual learning environments.
- Designed an intuitive user interface with easy login increasing user satisfaction for remote sessions.

LEADERSHIP AND INVOLVEMENTS

- Currently serving as the **Student Lead** for Public Interest Technology University Network, Rust College chapter https://techfc.org/student-clubs
- Served as the Math and Computer Science club president from 2023-2024, and helped facilitate weekly workshops to boost coding efficiency for club members.