RAMEESHA NAZARETH

Computer Engineering Undergraduate
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PROFILE

I am a final year Computer Engineering student who is passionate about data and AI, with hands-on experience in developing and deploying AI-powered solutions. I am proficient in building full machine learning pipelines, including data preprocessing, model training, and integration with web and mobile interfaces. I am skilled in applying NLP and deep-learning techniques to solve real-world problems, with coding skills in Python and frameworks such as scikit-learn and TensorFlow. I am eager to learn and contribute in collaborative, fast-paced environments that foster innovation and teamwork. Committed to continuous learning, with a strong foundation in engineering mathematics, algorithmic thinking, and effective communication.

SKILLS

- **Technical Skills:** Python, TensorFlow, scikit-learn, Feature Engineering, Data Visualization, Matplotlib, NLP, CNN, Git, Engineering Mathematics, MySQL/SQL, phpMyAdmin, Database Design, Power BI
- **Soft Skills:** Critical thinking, Problem-solving, Teamwork, Effective communication, Fast Learning
- **Languages:** English (Fluent), Sinhala (Native)

PROJECTS

Resume Categorization Model and Website *June 2025 - July 2025*

- Built a full-stack machine learning pipeline to classify resumes into job domains using NLP, including preprocessing (tokenization, stopword removal), tf-idf feature extraction, and model evaluation.
- Trained and optimized 3 Machine Learning models, which are Logistic Regression, Multinomial Naive Bayes, and Support Vector Machine(SVM).
- Documented the entire workflow in Jupyter Notebook, with version control via Git, demonstrating end-to-end machine learning lifecycle skills from raw data ingestion to inference-ready model.

Skills: NLP, Matplotlib, NumPy, Pandas, Data Visualisation, Jupyter Notebook, Model Evaluation, Model Training

AI Chatbot using Gemini 2.0 Flash API *May 2025 - June 2025*

- Developed a responsive web-based chatbot integrating Gemini 2.0 Flash API for dynamic, low-latency text generation.
- Engineered the frontend with vanilla JavaScript, HTML, and CSS, implementing asynchronous API calls to stimulate real-time conversational AI behaviour.
- Can be served as a minimal client for LLM-based assistants and as a proof of concept for applying LLMs in low-resource environments, ideal for extending into customer support bots or educational tutors.

Skills: REST API Handling, LLM Integration, HTML, CSS, JavaScript, Prompt Engineering

Tomato Disease Identification Model and Mobile App *Sep 2023 - May 2024*

- Collaborated on training a CNN model using TensorFlow in Google Colab to classify tomato leaf diseases from images, and assisted with data preparation, augmentation, and model training, which achieved a 0.9991 accuracy.
- Designed and built the frontend UI using React Native and JavaScript, an intuitive interface for users to upload images and view disease predictions.
- Ensured alignment between model output and app behaviour while working in a collaborative environment.

Skills: TensorFlow, CNN, Google Colab, React Native, JavaScript, UI Design, Jupyter Notebook

WORK EXPERIENCE

Trainee Electronic Engineer

National Engineering Research and Development Centre of Sri Lanka *Oct 2024 - Jan 2025*

- Developed an Arduino-based energy meter for the NERDC's elephant energizer development project, writing firmware in C++, where scaling factors and delays were the main focus of the code.
- Contributed to debugging and optimizing the code, fixing errors such as resolving LCD flickering with strategic calls.
- This system, along with the Elephant Energizer, is now deployed at the Weerawila Open Prison Camp, validating reliability in field conditions.

Skills: Embedded Systems (C++/Arduino), IoT, PCB Design, Hardware Prototyping

EDUCATION

Bachelor of Science Honours in Computer Engineering

The Open University of Sri Lanka 2021 - 2026