

FRANSI M.

Elec & Computer Engineer

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Addis Ababa, Ethiopia

Summary

I am an Electrical and Computer Engineer with a focus on Computer Engineering, specializing in software development. My expertise lies in designing, building, and optimizing software systems and applications. I am proficient in programming languages, software architecture, and algorithms, with experience in developing embedded systems, AI-driven applications, and network security solutions. Additionally, I have strong skills in machine learning, deep learning, and integrating software with hardware components for seamless performance.

Core Skills

Programming : Advanced algorithm and data structure design, Software Engineering, Software lifecycle, analytical & problem-solving skills, Networking, Data Science and AI/ML model fine tuning.

Tech Stack : Java, C++, Python, HTML, CSS, JavaScript, MATLAB, R, SQL, Linux/Windows OS, Bash/Shell and Gitlab, TensorFlow, PyTorch, Scikit Learn and more.

Other skills : Team collaboration, Creativity, Communication, Adaptability and Time Management

Work Experience

Machine Learning Intern

Aug 2023 - Sep 2023

Sync Intern, Mirzapur | India

- Implemented Machine Learning algorithms, increasing data analysis speed by 60%, leading to faster actionable insights.
- Enhanced model performance by conducting data preprocessing (data cleaning, normalization, feature extraction) resulting in a 25% improvement in model accuracy.
- Developed and trained predictive models (classification, regression, clustering) using Python and TensorFlow, achieving a 40% boost in prediction accuracy

Network Intern

Jun 2023 - Sep 2023

Raras Technologies PLC | Addis Ababa

- Led network infrastructure design and implementation, achieving a 40% improvement in system efficiency through detailed Nexus requirements gathering, architecture development, and testing.
- Mastered Cisco switches, routers, and technologies like VLANs, VRRP, and OSPF routing, enhancing network stability and reducing error rates by 50%
- Configured core network components (routing, switching, security, wireless), resulting in a robust and secure network foundation, supporting Raras' future growth and reducing downtime by 35%.

Projects

Brain Tumor Detection System

Jan 2024 - Jun 2024

- Developed a brain tumor detection and classification system using advanced machine learning and deep learning techniques.
- Created a convolutional neural network (CNN) model trained on a curated dataset of medical images for accurate brain tumor identification and classification.
- Employed data preprocessing steps, including image augmentation, to enhance model generalization and handle diverse image variations.

- Achieved 98.6% accuracy in detecting and 94% in classifying brain tumors, providing valuable support for medical professionals in diagnosis and treatment planning.
- Showcases the potential of AI in healthcare, contributing to more efficient and accurate medical imaging analysis.

[\(GitHub Repo\)](#)

Plant Disease Detection System

Feb 2023 - Jun 2023

- Developed a machine learning-based system to identify and classify various plant diseases from images.
- Built a deep learning model using Amazon Sage Maker, leveraging convolutional neural networks (CNNs) to detect disease symptoms from leaf images.
- Preprocessed the dataset, which included a wide range of plant species and disease types, through image augmentation and normalization for improved model robustness.
- Trained the system to recognize disease patterns with 95% accuracy, enabling early intervention for farmers and agricultural experts.
- Integrated the model into a user-friendly interface, allowing users to upload leaf images and receive real-time feedback on potential diseases.

[\(GitHub Repo\)](#)

Education

Addis Ababa Science and Technology University

Sep 2019 - Jun 2024

Bachelor of Science Electrical and Computer Engineering

Languages

Amharic (*fluent*), **English** (*fluent*), **Afan Oromo** (*fluent*)

Certificates

- Oracle Certified AI Foundations Associate (Oracle)
- Generative AI with Large Language Models (Coursera)
- Machine Learning (Coursera)
- Machine Learning (Sync Intern)
- Data Science (Coursera)
- Software Engineering Virtual Experience (JPMorgan Chase & CO.)
- Back-End Engineering Virtual Experience (Lyft)
- Python Data Structure (Coursera)

References

Ashenafi Yadesa Gemechu (PHD)

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