# Amicable Alemayehu

#### **EDUCATION**

#### Addis Ababa University,

May 2022 – Jul 2026 | Addis Ababa, Ethiopia

BSc in Electrical and Computer Engineering

- **Coursework:** Computer programming with Python, Object-Oriented Programming with Java, Statistics & Applications, Computer Architecture, Computational Methods, Digital Logic Design, Digital Signal Processing, Microelectronics Devices and Circuits.
- **Relevant Project**: Designed and simulated a low-frequency filter in Proteus to attenuate noise below 300 Hz for a voice-controlled smart home system, enhancing speech recognition accuracy.
- Top 10 university in Africa
- Achievements: Ranked top 1% in the 2021 Ethiopian University Entrance Exam (EUEE) out of 550,000+ students who also took the exam.

#### **SKILLS**

Electrical Design Software:: Proteus, Multisim, MATLAB

Data Analysis & Visualization: Numpy, Pandas, Matplotlib, Seaborn, Plotly, Dash, Power BI

Machine Learning: Speech Recognition, NLP, Time-series, Transfer Learning

Language and Frameworks: Python, Bash, FastAPI, RAG, Langchain, JavaScript, PHP, SQL, Ruby, Java,

Django, Golang

Tool and Platforms: Git, Linux, Terraform

Cloud & DevOps: AWS(S3, Lambda), Docker, Azure AI

#### PROFESSIONAL EXPERIENCE

iCogLabs, ML Engineer and AI Researcher

Addis Ababa, Ethiopia

• I contribute to the development of cutting-edge AI and machine learning solutions, focusing on projects that drive progress in Artificial General Intelligence (AGI). My work includes researching innovative methodologies, collaborating on the Hyperon project, and integrating advanced algorithms to tackle complex problems. I also engage in practical applications such as translating research concepts into functional implementations and optimizing systems for real-world impact.

# **VEX Robotics: Technical, Coding and Drivers Team** member

• I contributed to designing and iterating the VEX Robotics materials, as well as writing code for the 15-second autonomous period, 60-minute autonomous period, and driver control.

### **PROJECTS**

**MOSES (Meta-Optimizing Semantic Evolutionary Search),** Conducted in-depth research on integrating backward chaining into MOSES, enhancing its reasoning and decision-making capabilities for AGI systems. Developed and tested optimization algorithms for semantic representation and inference.

**ECAN (Economic Attention Networks),** Researched and implemented attention-allocation mechanisms to simulate economic-like decision-making processes. Designed models to improve cognitive efficiency and resource optimization in AGI systems.

**Mindplex and Research Article Summarization,** Authored narrative-driven articles for Mindplex, highlighting AGI breakthroughs and societal implications. Summarized and analyzed research papers, translating technical concepts into clear and engaging content for diverse audiences.

**Reading on Machine Learning Constantly,** Engaged in continuous learning on machine learning through Coursera courses and in-depth study of research papers provided during the program. Focused on understanding advanced concepts, algorithms, and real-world applications to enhance theoretical and practical knowledge in the field.

Development of an IoT-Based Radio Spectrum Monitoring System (Apr 2025 - Feb 2026)

### **PROFILE**

Fourth-year Electrical and Computer Engineering student at Addis Ababa University, specializing in Electronics Communication Engineering. Focused on AI applications in signal processing, intelligent systems, and AGI research, with experience in electronic system design.

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