Natannan Zeleke Mekonnen

Software Engineer

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EDUCATION

Bachelor of Science in Software Engineering　Jun 2021 – Jun 2025 | Addis Ababa, Ethiopia
Addis Ababa Science and Technology University ☑
- **Relevant Coursework**: Data Structures & Algorithms, Fundamentals of Programming, Database Systems, Software Engineering, Object-Oriented Programming, Computer Organization & Architecture, System Analysis & Modeling.

Coding Academy　Nov 2024 – Nov 2025 | Addis Ababa, Ethiopia
African To Silicon Valley - (Backed by Google) ☑
- **30+ hours/week** intensive program focused on Data Structures and Algorithms, mock interviews, and coding contests. Solved **500+ problems** on LeetCode ☑ and Codeforces ☑ .

PROFESSIONAL EXPERIENCE

Project Leader | Software Developer　Sep 2023 – Dec 2023 | Addis Ababa, Ethiopia
Addis Ababa Science and Technology University ☑
- Led a multidisciplinary team of **10 students** to develop VertePower, an IoT-based vertical farming system aimed at improving sustainable agriculture.
- Designed and implemented an automated soil moisture monitoring system to continuously track moisture levels and support data-driven irrigation.
- Built a real-time alert mechanism that notifies users of critical or optimal soil moisture levels in under **5 seconds**, enabling timely and efficient irrigation decisions.
- **Tools and Technologies:** ESP8266, IoT, Flutter, Arduino IDE, Node.js.

Mobile Application Developer Intern　Jun 2024 – Dec 2024 | Addis Ababa, Ethiopia
Ethioware - EdTech Initiative ☑
- Co-led a team of three developers to create an innovative mental health app for Alenelachehu Mental Health Institution ☑ .
- Integrated a real-time communcation channel with video chat functionality.
- Developed an AI-powered chatbot that supports conversations in **2** different Ethiopian Language, improving mental health accessibility for diverse user groups.
- **Tools and Technologies:** Flutter, Node.js, Firebase, MongoDB, Google Gemini API, Socket.IO, Jira.

PROJECTS

Assister ☑　Jun 2023 – Nov 2023
AI-Powered Refugee Assistance App
- Developed a mobile app that provides **24/7 support for refugees** through a generative AI chatbot, addressing health and safety needs.
- Implemented an AI-based symptom checker and a real-time hospital locator to enhance emergency response.
- **Tools and Technologies:** React Native, NativeWind, Firebase, MongoDB, Git, Generative AI (LLMs).

Guade　Oct 2024 – May 2025
AI-Powered Children's Cognitive Skill Development App
- Built an AI-powered mobile app that enhances cognitive and emotional development in children through emotion aware storytelling, adaptive quizzes, and a parental dashboard for monitoring and content customization.
- Trained a custom CNN using TensorFlow and Keras to recognize children's facial expressions in real time with **74%** accuracy, engineered the backend logic with FastAPI, and incorporated the camera-based detection into the Flutter frontend for adaptive content delivery.
- **Tools and Technologies:** Tensorflow , Keras, Gemini API, FastAPI , Flutter , Next.js.

SKILLS

Language: Python, JavaScript, C++, Java, SQL, Typescript, HTML/CSS, PHP

Frameworks / Libraries: React, Django, Node.js, Flutter, Next.js, Tailwind CSS, Express.js

Developer Tools: Docker, Github, Git, Jira, VS Code, Arduino IDE

ACHIEVEMENTS

- Ranked in the top 20 out of 500+ participants in the **2023 Generative AI Hackathon** ☑ organized by A2SV.
- Awarded the **2024 President's Award** for academic excellence at AASTU, earning a **3.92 semester GPA**.
- Selected as one of the **top 5 performing interns in 2024** ☑ at Ethioware for outstanding contributions to mobile app development.
- Honored in **2024** by Brighter Generation ☑ for exceptional technical support and coordination during internship.