

# Heyru Jemal Mohammed

Software Engineer | Full stack Developer | Mobile App Developer

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## 🎓 EDUCATION

### Haramaya University,

Software Engineering

02/2023 – Present

Haramaya, Ethiopia

4th-Year software engineering student with strong academic performance [3.7 CGPA] and solid technical expertise in software development. Acquired a strong foundation in data structures, algorithms, databases, software architecture, and mobile and web application development. Demonstrated high technical proficiency through academic projects and real-world application development.

## 🧠 SKILLS

**Programming Languages:** JavaScript, Typescript, Python, C++, Dart

**Frameworks & Libraries:** Bootstrap, React, Tailwind CSS, Next.js, Node, Express.js, Flutter, Firebase

**Core concepts:** Object-Oriented Programming(OOP), Full-stack Web Development, Mobile App Development, Relational Database

**Developer tools:** Git, GitHub, GitLab, FastAPI, Docker, WebSockets, Asyncio, Pydantic

## 🌐 LANGUAGES

**Amharic:** Native

**English:** Proficient

## 🏢 PROFESSIONAL EXPERIENCE

### Yero Bike, Private Startup

12/2025 – Present | Addis Ababa Ethiopia

- **Developed a low-latency voice agent** using **Python and FastAPI** for real-time interactions.
- **Engineered scalable backend APIs** to optimize voice processing and system response times.
- **Streamlined automated communication** logic to enhance the efficiency of the voice-driven service.

### Nile Technology Solutions

02/2024 – 05/2025 | Harar, Ethiopia

- **Developed scalable web apps** using **React**, improving performance by **6.8%**.
- **Engineered secure RESTful APIs** and optimized databases for faster data retrieval.
- **Collaborated in Agile sprints** to deliver high-quality, user-focused features.

## 📁 PROJECTS

### Generic-voice agent, Generic Ai voice agent

12/2024 – Present

- **Architecture:** Developed a "Hexagonal" backend using **Python 3.13** and **FastAPI**, prioritizing **Async I/O** for concurrent handling of high-volume voice streams.
- **Telephony & Audio:** Integrated **Twilio Media Streams** with **Deepgram Nova-2** and **Aura** using 8kHz mono  $\mu$ -law encoding to ensure high-fidelity, low-latency transcription and speech synthesis.
- **Data Integrity:** Designed a scalable **PostgreSQL** schema supporting multi-tenancy and industry-agnostic configurations, utilizing **SQLAlchemy (Async)** and **Pydantic** for strict type-safe data validation.
- **DevOps:** Enforced 100% type coverage and PEP8 compliance using **MyPy**, **Ruff**, and **Black** through automated pre-commit hooks.

### Havan Academy Mobile App, Educational App For Havan Academy

10/2024 – 01/2025

Developing a cross-platform **Flutter-based educational app** featuring **user authentication, course and lesson management, video-based learning, quizzes, and student progress tracking**. Designed with a clean, scalable architecture and optimized for performance to support an engaging learning experience.

### Eco Go – Fleet Management System, Toronto, Canada

01/2025 – 02/2025

Designed and developed a comprehensive fleet management platform consisting of a full-featured **Admin Panel** and **Driver and Rider mobile applications** built with **Flutter**. The system enables real-time trip management, driver assignment, ride booking, vehicle tracking, and operational monitoring. Implemented role-based access control, trip lifecycle management, and performance analytics to support efficient fleet operations. Focused on scalability, clean architecture, and a seamless user experience across all platforms.