BAREKEGN ASEFA

Full-Stack Engineer

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PROFILE

Full-Stack Engineer who builds multi-role systems and real-time platforms, from database design to deployment. Built an AI study platform for 2,000+ students with a revenue-generating Premium plan, and turned a hotel's static landing page into a complete hotel management system. Helped build a government project management system during an internship. Able to explain a product's business value to clients and promote it. Hackathon participant and community builder.

EXPERIENCE

Software Engineering Intern **2024 – 2025**

Ethiopian Ministry of Innovation and Technology — Addis Ababa, Ethiopia · Live demo

Stack: Next.js, TypeScript, Prisma ORM, PostgreSQL, Node.js, Express.js

- Built MinT, a cross-departmental project management system, as part of a team
- Owned backend architecture: designed the data model for nested project structures with hierarchical RBAC
- Implemented real-time data synchronization and a government-compliant audit trail system

PROJECTS

Ras Hotel Management System **2025 – 2026**

Lead Full-Stack Developer — Hotel in Harar, Ethiopia · Live demo

Stack: Next.js 14, Supabase, PostgreSQL, TypeScript, Chapa, Africa's Talking, OpenAI API, Google Maps

- Redesigned the hotel's static landing page (weak design, no system behind it) into a complete hotel management system
- Designed a 14-table relational schema covering bookings, rooms, staff roles, payments, and guests
- Built the owners' management system: multi-role staff dashboard (admin, receptionist, manager) with Amharic/Afaan Oromo localization
- Integrated Chapa payments (TeleBirr, CBE Birr), Africa's Talking SMS, PDF ticket generation, and Google Maps
- Built a multilingual RAG chat assistant (English, Amharic, Afaan Oromo) on OpenAI's API
- Presented the system to potential clients in person and explained its business value in simple terms

HU Freshman — AI Academic Platform **2025 – 2026**

Full-Stack Developer & Product Lead — Self-initiated | Freemium SaaS | Revenue-generating · Live demo

Stack: React.js, Node.js, Express.js, Firebase, Google Gemini API

- Platform serving 2,000+ freshman students with a Premium model generating real revenue
- Built mock exam engine (500+ questions, auto-grading), RAG-based AI study assistant, and GPA predictor
- Promoted the platform myself, in person and on social media
- Impact: 30% improvement in exam scores; 20% reduction in first-year failure rates

HU Connect — University Knowledge Platform **2025 – 2026**

Backend Lead — Self-initiated | MySQL on Aiven · Backend on Render · Live demo

Stack: React.js, Node.js, Express.js, MySQL (Aiven), Socket.io

- Designed reputation scoring algorithm and real-time notification system (Socket.io)
- Built multi-layer content moderation: automated spam detection + community self-governance

ShopVerse — E-commerce Platform **2025 – 2026**

Full-Stack Developer — Self-initiated

Stack: React.js, Node.js, Express.js, Firebase, Stripe

- End-to-end e-commerce platform with Stripe payments, real-time order tracking, and admin dashboard

CERTIFICATIONS & RECOGNITION

RAG for Enhanced AI Outputs **2026**
IBM SkillsBuild
Completed an IBM SkillsBuild course on Retrieval-Augmented Generation (RAG), covering techniques for grounding AI outputs in external knowledge to improve accuracy and relevance. View Certificate

Cursor Hackathon East Ethiopia 2026 — Certificate of Achievement **Mar 2026**
Cursor · Awarded by Alpha Lencho, Cursor Ambassador
Participated in a 2-day AI-assisted development hackathon by Cursor. Recognized for technical execution, creativity, and collaborative problem-solving. View Certificate

HUCISA Founding Member — Certificate of Participation **Nov 2024**
Haramaya University CCI · Signed by College Dean Dr. Kassahun Takele
Recognized for founding HUCISA — the university's first computing student association — building a technical community for 1,000+ CS/IT students. View Certificate

National Voluntary Community Service — Certificate of Recognition **2024**
Ministry of Peace & Ministry of Education, Federal Democratic Republic of Ethiopia
30-day government cross-border voluntary service program (5 days training + 25 days community deployment). View Certificate

EDUCATION

B.Sc. Software Engineering **Sep 2022 – Jun 2026**
Haramaya University — Haramaya, Ethiopia · Graduated June 27, 2026
Founding Member, HUCISA · Participant, Cursor Hackathon East Ethiopia 2026

MERN Stack Web Application Development **2022 – 2023**
Evangadi Tech

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript
Frontend: React.js, Next.js 14, HTML5, CSS3, Tailwind CSS
Backend: Node.js, Express.js, REST API Design
Databases: PostgreSQL, MySQL, Firebase, Supabase, Prisma ORM
Integrations: Stripe, Chapa, Africa's Talking, OpenAI API (RAG), Google Gemini API, Google Maps
Tools: Git/GitHub, Socket.io, JWT Auth, Docker (basics), Render, Aiven, Vercel

LANGUAGES

English (Fluent) · Amharic (Native) · Afaan Oromo (Basic)