

Abenezer Lulseged Wube

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SKILLS

Programming Languages: C, C++, Python, Go, Java, PHP, C#, Javascript, Typescript

Frameworks/Libraries: FastAPI, NATS, Kafka, Qt, PySide/PyQT, PyTest, Angular, React

DevOps: Git, Github, Docker, Kubernetes, CICD

Testing: Unit test, Regression test

APIs: RESTful APIs

EXPERIENCE

Quyoom Technology

Backend Engineer: Enzily (AI-Powered Language Learning Platform)

Mar2026 - May 2026

- Engineered the backend architecture for an interactive AI language learning application built on FastAPI and orchestrated with NATS for high-throughput, low-latency messaging.
- Developed a real-time debate workflow utilizing Gemini LLM to power live, dynamic, voice/text-based debates between users and AI agents.
- Implemented real-time learning features, including automated live vocabulary extraction, contextual definitions, and user progress tracking.
- Integrated Razorpay API for secure user subscription management, plan processing, and automated billing workflows.
- Built and optimized streaming endpoints to handle real-time LLM interactions, ensuring an interactive and fluid conversational user experience.

Backend Engineer — Cabreen Rides (Ride-Hailing Platform)

Aug2025 – Dec 2026

- Designed and developed the backend for **Cabreen Rides**, a ride-hailing platform supporting **instant rides, manual rides, and shared rides**, using **FastAPI**.
- Built real-time ride workflows including driver matching, trip lifecycle management, fare computation, and state synchronization using **Ably** and **Kafka**.
- Implemented event-driven microservices for ride coordination, background processing, and status tracking.
- Integrated third-party services including:
 - **Razorpay** for payments and refunds
 - **MSG91** for SMS notifications
 - **OneSignal** for push notifications
 - **Ably** for real-time messaging
- Designed and documented RESTful APIs for ride booking, trip tracking, driver assignment, payments, and trip history.
- Implemented role-based access control, request validation, retries, and circuit breakers for external services.

- Architected and implemented backend services in Python using FastAPI to support hierarchical deterministic (HD) wallet generation via the hdwallets library, enabling multi-chain wallet creation and management.
- Integrated Supabase as the primary backend platform, configuring real-time database triggers, Row Level Security policies, authentication (JWT) flows, and storage buckets for secure wallet metadata handling.
- Designed and documented RESTful API endpoints for wallet creation, account derivation, transaction signing, and balance retrieval, leveraging OpenAPI/Swagger for clear developer consumption.
- Established rigorous testing practices with Pytest, crafting unit, integration, and regression test suites that ensured 90%+ code coverage and maintained system reliability.

Talon Lab

Developer

Apr 2024 - Present

Hierarchical Deterministic Wallet (HD Wallet)

- Developed a Python-based library for implementing a hierarchical deterministic wallet generator supporting over 200 cryptocurrencies, managing multiple coins, accounts, and millions of addresses per chain.
- Designed and built a desktop application interface for user interaction with the HD Wallet, streamlining wallet creation and management with Python.
- Developed a responsive web application using Python, extending the functionality of the HD Wallet to manage wallets on multiple devices.
- Debugged and resolved critical issues in desktop and web apps, leveraging Python to ensure a reliable user experience through unit and regression testing.
- Authored comprehensive technical documentation to assist developers in integrating the HD Wallet library into their projects.

Bitcoin Improvement Proposal - 0038 (BIP38)

- Developed a cross-platform desktop client application adhering to BIP38 standards for secure key management, supporting both No EC-multiply and EC-multiply encryption modes using Python.
- Implemented an intuitive user interface and backend logic in Python, facilitating seamless interaction with the BIP38 library.
- Diagnosed and resolved critical bugs across applications using Python, contributing to enhanced reliability and user experience through continuous integration and deployments (CI/CD).
- Authored automation scripts to streamline the build and deployment process across various platforms.

Gotmeri PLC (Addis Ababa, Ethiopia)

Desktop App Developer

Jan 2023 - Dec 2023

- Developed and maintained features for a Hospital Management System (HMS) project using Java.
- Collaborated with a team of developers to ensure project success. Utilized Spring Boot framework for efficient and scalable application development.

- Interacted with clients to gather requirements and ensure project alignment with expectations.

ClowRast - 3D Software Rasterizer

Developer

2020 - Present

- Developed a shader-based software rasterizer in C11, optimized for real-time rendering of 3D graphics.
- Engineered the system to support seamless loading, parsing, and rendering of complex 3D models. Created a user-friendly interface to easily navigate, view, and manipulate 3D models in various formats.
- Utilized advanced mathematical algorithms to handle perspective-correct texture mapping, z-buffering.
- Conducted extensive testing and profiling to ensure cross-platform compatibility and stability. Documented the entire development process and produced detailed project reports outlining technical challenges and solutions.

EDUCATION

ADMAS UNIVERSITY, ADDIS ABABA, ETHIOPIA

Bachelor of Science - BSc, Computer Science

Sep 2019 - Aug 2023

DONBOSCO CATHOLIC SCHOOL

High School Diploma

2016 - 2019

CERTIFICATES

Bachelor of Science (BSc) in Computer Science:

Cybersecurity: Cisco Networking Academy - Certificate of Course Completion

LANGUAGES

English(Proficient), Amharic(Native)