

Hileamlak Yitayew

hilea.dev | [@wehmmcoin](https://twitter.com/wehmmcoin) | [GitHub](https://github.com) | ehmyitayew@college.harvard.edu | +1857-999-7480

Education

HARVARD UNIVERSITY

Concurrent B.S/M.S in Computer Science, GPA: 3.688 / 4.0

Cambridge, MA

May 2025

Relevant Coursework:

- **Undergrad:** Machine learning. Computer architecture. Computer organization (Intro to Operating Systems). Data systems. Functional programming. Abstraction and design computation. Theoretical Computer Science. Linear algebra. Multi-variable calculus. Discrete Math. Statistics and Probability
- **Graduate:** Distributed systems, Big Data systems

Relevant activities: Blockchain projects at the Harvard blockchain labs. Financial analysis for the Harvard investment club. Soccer robot at the Harvard robotics club. Startup at I-labs (Harvard president's innovation challenge finalist)

Technical Skills

Programming: Python, Javascript, C, C++, Solidity, OCaml, LaTeX, Shell, System Verilog, x86 Assembly

Web/Android Dev: Product design (Figma), Full-stack (HTML/CSS/SCSS, React, Node), Express, React-native

Technical Experience

Microsoft, Xbox

Software Engineer

May 2023 - Present

- Conducted research on LLMs to enhance Xbox's content moderation tool.
- Designed a full-stack application based on research findings using Domain-Driven Design (DDD).
- Developed a scalable full-stack React app and deployed it on Azure Container Instances using Docker, including unit tests, testing pipelines, and deployment pipelines.
- Leveraged developed UI tools to expand our dataset by 10% and enhance the content moderation tool.
- Equipped the Language and Culture team to generate data efficiently using developed tools.
- Applied Agile methodologies throughout the project and demonstrated leadership by leading weekly Engineering retrospective meetings and managing backlog refinement sessions.
- Conducted biweekly stakeholder meetings to align project goals and streamline processes

OBAN CREDIT

Co-founder | Software Engineer

Jun - May 2023

Microfinance marketplace in Nigeria. Conducted customer research. Developed mobile app with React Native. Employed and managed about 10 employees.

SWIP3

Co-founder | Software Engineer

Jan - May 2022

A web3 equivalent of credit cards that allows using cryptocurrencies as collateral to get pre-payment loans. Co-authored a pitch deck that raised about \$100k. Wrote a Chrome extension with javascript. Programmed, audited, and tested smart contracts for loaning. Worked in a group setting. Won 3rd place at Columbia Blockchain 2022.

Relevant Projects

Note: For detailed information and source code of these projects, please visit my Github profile: [hileamlakb](https://github.com/hileamlakb)

HamsterDB (Column-store Database): At 10,000 lines of code, this is a column-store database built, from scratch, with C. Includes parallelized processing, indexing, and joins. Can process up to 100 Million rows of integer data. Operations include select, fetch, sum, average, subtract, add, and more. Test files and test generators written in Python are included.

GBK (Linux shell): A custom shell built-in C that can execute basic Linux commands and provide built-in commands. Uses system calls to interact with the operating system and utilizes different Linux system internals.

Simple Tor: A Python-based implementation of a Tor-like network that facilitates anonymous communication and browsing through a series of relay nodes, ensuring privacy and security for its users.

Jmessage (Fault-Tolerant Chat Application): Developed a resilient chat application capable of withstanding up to N failstop faults. Using a master-slave architecture and gRPC protocol for communication and consensus between components.

Mips Processor (SystemVerilog): Showcasing a deep understanding of low-level programming and hardware design, this custom multicycle processor was implemented in SystemVerilog. Wrote a custom assembler for a subset of the MIPS assembly that goes with this processor.

Interests and Hobbies

Sky Diving, Chess, SciFi, Travel, Language Learning