

Emmanuel Mokua

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EDUCATION

Howard University

Bachelor of Science in Computer Engineering, Minor in Computer Science

Washington, DC

Aug. 2022 – May 2026

TECHNICAL SKILLS

Languages: Python (3+ years) | Go | TypeScript (2 years) | React | Hack | C++ | SQL

Frameworks/Databases: Flask | FastAPI | Tensorflow | Pandas | PyTorch | PostgreSQL | MySQL | LangChain

Tools: Git | Docker | AWS (S3, Sagemaker) | GCP | Notion | Kubernetes | GitHub Actions | Figma

EXPERIENCE

Meta Platforms, Inc.

Software Engineering Intern - Advertiser Verification ENG, FB & IG

Menlo Park, CA

May 2025 – August 025

- Built a full-stack, end-to-end entrypoint in the Meta Business Suite's Advertiser Verification Center to enable default payer and beneficiary setup, using GraphQL, React, and Hack to **support regulatory compliance** for FB/IG ad accounts.
- Wrote design docs and built the Taiwan FB mobile version of the default p/b verification flow, configuring progressive rollout with regional flags and staged thresholds to **drive a 35% uplift in day-1 revenue collection**.

Howard University ML Labs

Applied Machine Learning Researcher

Remote

Current

- Designing a valence-arousal workflow that quantifies emotional intensity by extracting and rating adjective-noun pairs, evaluated using RMSE and continuous F1 metrics as part of research on **multilingual aspect-based sentiment analysis**.

Google x National Education Equity Lab

Data Science Teaching Fellow

Remote

Current

- Taught 100+ high school students data analysis using SQL and R, covering query optimization, joins, aggregation pipelines, and statistical modeling with **R's tidyverse and ggplot2**.

Meta Platforms, Inc.

Software Engineering Intern - Thread Experiences, Instagram

Menlo Park, CA

June 2024 – August 2024

- Developed recommendation classification models using **batch-optimized logistic regression** with learning rate scheduling, reducing cross-entropy loss and improving prediction accuracy by 45% on user interaction signals.
- Built a **model persistence system using incremental checkpointing** to serialize and store ML model state (weights, biases, hyperparameters), enabling seamless user experience across page transitions.

Howard University

Undergraduate Research Assistant

Washington, D.C

September 2023 - October 2024

- Customized network settings to enable multi-carrier transmission and massive MIMO, supporting simulations of over **500 Mbps throughput**, for evaluating network performance under real-world, high-capacity scenarios.
- Designed and simulated RF signal processing chains in GRC, incorporating **advanced filters and modulation schemes** to accurately model **doppler shift** conditions, increasing simulation fidelity by **30%**.

PROJECTS

Fathom | (2nd place) GPT 5 OpenAI Startup Hackathon

September 2025

- We built a multilingual Siri-like engine for any codebase that connects to GitHub/GitLab/Bitbucket, **ingests and indexes source + infra logs** (AWS S3, Kubernetes), **constructs a dependency graph of files, functions, and classes**, and lets you query any commit, file, or subsystem in any language with live contextual answers.

InCourse | incourseai.com (at 70+ beta users across campuses)

Current

- Building a **memory-efficient two-level RAG architecture on top of Canvas APIs to optimize context retrieval** for engineering coursework, integrating student performance history with cross-domain knowledge graphs (e.g., circuits → VLSI → physics) to dynamically curate context windows for studying

AWARDS & LEADERSHIP EXPERIENCE

- Google Hackathon(**1st Place**), GPT5 OpenAI Hackathon(**2nd Place**), Black Blockchain Hackathon(**1st Place**)
- **Scholarships:** 2x Amazon–Codepath Scholar, HU Capstone Scholarship, Mordecai Johnson Award
- **School Orgs:** ColorStack, PNC Prime Incubator Program Finalist, Howard University Robotics Organization