

Iman Kahssay

Davis, CA · iakahssay@ucdavis.edu · 714-510-4135 · linkedin.com/in/iman-kahssay · github.com/ikahssay/Portfolio

EDUCATION

Master of Science in Computer Science

University of California, Davis

Sep 2024 - Expected Graduation: June 2026

Relevant Coursework: Software Engineering, AI, ML, Algorithm Design & Analysis, Data Visualization, Compilers

Bachelor of Science in Electrical Engineering & Computer Science

University of California, Berkeley

May 2022

Relevant Coursework: Data Structures & Algorithms, AI, Discrete Math, Graphics & Imaging, Computer Security, UI Design

SKILLS

Languages: Python, Java, C/C++, Kotlin, Go, SQL, HTML, XML, JavaScript, Processing, Scheme

Technologies/Tools: Git, React, Node.js, MongoDB, NumPy, PyTorch/Torchvision, Postman, Android Studio, Figma

PROFESSIONAL EXPERIENCE

Researcher, Interactive Organisms Lab at UC Davis

Sep 2024 - Present

- Designed a microfluidic device with colorimetric biosensors to detect biomarkers in bodily fluids, using Fusion 360 & FormLabs
- Developed a companion Android app with Figma and Android Studio (using Kotlin and XML), integrating sensor data pipelines to enable real-time biomarker detection **with 80% accuracy**, and personalized health summaries and recommended actions
- Created and led** women-centered case studies (21 participants), incorporating feedback that **improved** the 3D-printed device usability **by 20%** and informed app feature refinements; **co-authored** and presented results in a research report

Teacher's Assistant, UC Davis

Sep 2024 - Present

- Supported 150+ students across 4+ courses and 45+ office hours, **resolving 95% of technical & programming issues** (debugging, tooling, and workflow), managing attendance, exams, and grading **1000+ assignments and quizzes**
- Assisted with Processing, Python, MakerCode, Arduino, Circuit Playground, and related projects. Administered lab setups and provided logistics support for lectures, coding labs, vinyl & laser cutting, 3D printing, circuit building, and soldering

Technical Account Analyst, Zain Psychological & Behavioral Health Services

Jan 2022 - Sep 2024

- Built scalable RESTful APIs using Flask, Python, and MongoDB to support internal accounting workflows, enabling reliable data retrieval, CRUD operations, and integration with the accounting user interface
- Executed end-to-end testing in Postman, **improving user flow by 23% & page speed by 19%**

PROJECTS

FitBot | React, Node.js, Express, MongoDB, Python

Mar 2025 - Jun 2025

- Built a personalized fitness analytics web app in a 3-person team, using Python and JavaScript, to compute and visualize calories burned and goal progress; leveraged research to **improve clarity by 45% and user engagement by 52%**
- Engineered a scalable MERN architecture, enabling real-time updates, backend computation, and interactive visualizations
- Implemented multi-feature calorie-burn algorithms using 6+ physiological and activity variables across 10K+ activity records, **increasing personalization and accuracy of health insights by 35%**

BugSwarm Automated Bug Reporter | Python, REST APIs, CI, LLM

Sep 2025 - Dec 2025

- Collaborated on a 4-person team to build an end-to-end automated bug reporting pipeline in Python, transforming raw CI failure artifacts into structured, human-readable bug reports and **reducing manual bug documentation effort by ~70%**
- Integrated BugSwarm and Travis CI via REST APIs to ingest and process CI failure artifacts, implemented log sanitization and diff summarization, and integrated an LLM (Google Gemini) to generate root-cause analyses and fix suggestions; **generated 100/100 reports with 0 runtime errors**, demonstrating system reliability and scalability

Cloth Simulation with Realistic Rendering | C++, OpenGL, GLSL

Jan 2022 - May 2022

- Developed an interactive cloth simulation in C++ using a point mass and spring-based system, implementing physical constraints, numerical integration, and collision handling to accurately model cloth movement and reduce cloth clipping by **90%**
- Wrote GLSL programs to **improve visual & texture quality by 85%**, and developed two new shaders through research on new/improved shading models for textile materials, **optimizing visual quality by 80%**

Grammys Winner Prediction | Java, Android SDK, XML

Jan 2022 - May 2022

- Led a team of four to create an Android app where users can select, share, and discuss Grammy winner predictions with the public; implemented core application logic and UI components using Java & XML
- Tested and debugged workflows using unit tests and manual validation, **improving user flow by 51% and page speed by 43%**