

Omar Elamri

Los Angeles, CA | (612) 500-7733 | omar@eado.me | eado.me | linkedin.com/in/omarelamri | github.com/eado

PROFESSIONAL SUMMARY

Versatile, young software developer offering 5 years of experience specializing in agile software development methodologies, advanced machine learning algorithms, and proficient project management techniques.

EDUCATION

University of California, Los Angeles (UCLA)

Expected June 2025

M.S. Computer Science

University of California, Los Angeles (UCLA)

Graduated Cum Laude, June 2024

B.S. Computer Science, *Technical Breadth in Mathematics, Electrical Engineering*

GPA 3.93

Coursework: Compilers, Operating Systems, Algorithms, Data Structures, Networking, Machine Learning, Computer Architecture

WORK EXPERIENCE

University of California, Los Angeles (UCLA)

Los Angeles, CA

Undergraduate Teaching Assistant

March 2024 - June 2024

- Led discussions for over 10 weeks for UCLA's computer networking class under Professor Lixia Zhang, a founding member of the IETF.
- Created high quality materials teaching network sockets, cryptography, public key infrastructure, and routing; 95% students found helpful.
- Rolled out a reliable transport and security project single handedly: creating a comprehensive testing suite using the Docker registry.
- Mentored over 100 students individually during office hours; helping students with low level C/C++ code and network tech e.g. TCP, BGP.

The World Bank

Los Angeles, CA

Research Assistant

July 2023 - February 2024

- Applied advanced AI/ML technologies (BART, SVM, TF-IDF, RNNs) to automate research analysis, improving data processing efficiency.
- Optimized algorithms to enhance information extraction, providing actionable insights for policy decisions.
- Displayed leadership skills as the PM of a 4-member team, communicating with Dr. Graeme Blair and the UCLA research team.

Walleye Capital

Plymouth, MN

Part-Time Software Engineer

June 2022 - May 2023

- Contributed to Walleye's Deephaven DB system by designing and developing 5 interactive widgets using Java Swing.
- Proposed and implemented the modernization of Walleye's Trading Desk's tools, leading to a 10% increase in trader satisfaction.
- Created a command-line app that seamlessly integrated Microsoft Teams with RingCentral SMS, simplifying communication for employees.

TECHNICAL SKILLS

Software Engineering: Scrum, Agile; **Languages:** Swift, Python, Haskell, Kotlin, C, C++, Java, JavaScript, Rust; **Frontend:** React, Next.js, Tailwind, Svelte; **Backend:** Node.js, MongoDB, Azure, Google Cloud, Docker, Kubernetes, Linux, Pytest, Twilio

Machine Learning/Data Science: Jupyter, NumPy, Pandas, SciKit-Learn, PyTorch, TensorFlow, Keras

PROJECTS

Training Rabbits with Reinforcement Learning

February 2024 - March 2024

- Applied Reinforcement Learning policies such as DQN and PPO to train an agent to play complex decision games.
- Utilized the OpenAI Gym, PyTorch, and Tensorboard to train the agent for over 1 million iterations, achieving a win rate of 88%.

Formal Verification of Compiled Binaries

January 2024 - March 2024

- Spearheaded a project utilizing the angr platform for formal verification on over 50 compiled binaries.
- Utilized symbolic execution and z3 SMT solver, resulting in the detection of vulnerabilities and proof of program correctness.

FoodScoop

January 2023 - March 2023

- Built a full-stack, React Native application that presents UCLA dining info in a user-friendly manner, enhancing the student dining experience.
- Streamlined deployment to Google Cloud Run with automated continuous integration/testing frameworks and auto-deploy scripts.
- Displayed leadership skills as the PM of a 4-member team, effectively distributing tasks and ensuring timely project completion.

Digitr

January 2017 - January 2021

- Created an innovative educational application at the age of 12 that keeps a record of students' activities outside the classroom.
- Employed effective marketing strategies, resulting in adoption by over 20 schools.
- Presented the project at 5 trade shows and formal events, leading to a 23% increase in customer acquisition.

MISCELLANEOUS

Languages: Proficient in Arabic and French

Activities: Psi Beta Rho (division of ACM Cyber), *Member*; Upsilon Pi Epsilon (CS Honors), *Member*