

Mokhalad Aljuboori

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EDUCATION

University of California, Berkeley

GPA: 3.9

Bachelor of Arts in Computer Science

Expected: Dec 2024

- **Relevant Coursework:** Machine Learning, Natural Language Processing, Parallel and Distributed Computing, Computer Security, Networking, Computer Architecture, Operating Systems, Efficient Algorithms, Optimization Models

SKILLS & INTERESTS

- **Skills:** Python | Java | C++ | C | Typescript | Javascript | Go | SQL | Rust | Swift | System Design | English & Arabic (Fluent)
- **Tools & Technologies:** PyTorch | TensorFlow | React | Flask | Docker | AWS | Git | Agile/Scrum/DevOps | Pandas
- **Interests:** Refugee Mentorship | Traveling | Gym | Cooking | Teaching | Judo | Running | Hiking

EXPERIENCE

AddisCoder

Ethiopia, Africa

Teaching Assistant

July 2024 – August 2024

- Collaborated with Prof. Jelani Nelson to teach an intense 4-week deep dive course on algorithms and data structures in Ethiopia, Africa, to the top 100 brightest 10/11th graders in the country, with 3 hours of lecture and 4 hours of lab per day.
- Led a lab session for 23 students, hosting mini-lectures on topics that were hard to understand during the main lecture. Created Python-based lab materials and supported students in their completion.

Berkeley Rise Lab

Berkeley, CA

Undergraduate Research Assistant: Gorilla LLM

January 2024 – May 2024

- Developed a data pipeline for transforming API documentation into structured JSON, leveraging a web interface for API URL ingestion, Python requests for documentation retrieval, and OpenAI's API for data conversion. [URL Link](#)
- Created a dynamic HTML interface to enhance interaction with Gorilla LLM outputs. Leveraged concurrency to optimize server performance, reducing response times by 30%, and improving data retrieval and interface responsiveness.

Ai.Vocate

Berkeley, CA

Software Engineer Intern

March 2023 – August 2023

- Engineered an iOS chatbot application leveraging Swift and Firebase, and finetuning/prompt engineering OpenAI's API to act as a lawyer, resulting in a 95% accuracy rate in delivering real-time AI-powered legal advice.
- Designed and built 5 intuitive interfaces (Login, Signup, Home, Chat History, Message) in SwiftUI, following UI/UX best practices, leading to a 15% improvement in user retention.
- Built an efficient data management system using Firebase for secure user authentication, chat data storage, and real-time synchronization, boosting data retrieval speed by 25% and enhancing app stability.

Teaching Experience

Academic Intern – UC Berkeley College of Computing, Data Science & Society

January 2023 – May 2023

- Guided and mentored 30+ students through 12 weekly labs, using Python and statistics to analyze real-world datasets, helping students build a strong foundation in data science.

Calculus Head TA – Foothill College

April 2021 – July 2021

- Tailored discussion sections to effectively target and remedy students' weaknesses, employing diverse teaching techniques to accommodate varied learning styles and enhance overall comprehension.
- Created exams, homework, and discussion materials in LaTeX, enhancing clarity and student learning experiences.

PROJECTS

Neural Network for Image Classification | Python: PyTorch, Numpy

[Project – Leaderboard](#)

- Built a configurable convolutional neural network from scratch in Python using NumPy; created dense, convolutional, and pooling layers with various activation functions. Implemented backpropagation for each layer with stochastic gradient descent (with and without momentum).
- Achieved 93.6% accuracy on CIFAR-10 dataset, ranking top 3 out of 500 participants in competitive university competition.

Secure File Sharing System | Go, Cryptography

[Project](#)

- Built a Dropbox clone; a secure file-sharing system that supports user authentication, file operations, sharing & revocation.
- Implemented cryptographic encryption schemes, RSA signature verification, etc., to ensure the confidentiality, authenticity & integrity of sensitive data in the face of a suite of malicious attacks on our code by the course staff.
- Earned the highest score among 331 teams in the class, outperforming the average by +2.33 standard deviations, demonstrating exceptional proficiency in secure system design and implementation.

DotPrompt (@ UC Berkeley AI Hackathon) | React.js, Node.js, Tailwind CSS, OpenAI API

[DevPost](#)

- Developed a platform for AI Prompt Engineers to create, customize, share, and manage generative AI prompts using a team-designed scripting language. Consumers can then browse and edit key parameters & run them in-house.
- Coded the backend using Node.js, managing API requests, handling user data, and integrating the OpenAI API for executing prompts.