Ali Sao

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EDUCATION

University of California, Irvine **June 2027**
B.S in Computer Engineering

Technical Skills

Programming Languages: *Haskell, JavaScript/TypeScript, C/C++, Python, Java, SQL, Bash, Linux*
Frameworks/Tools: *React, Next.js, Node.js, Express.js, RESTAPI, Tailwind, Docker, Kubernetes, NGINX, PostgreSQL, AWS, Git/GitHub, Agile*

PROJECTS

Engineering Room Booking Platform | Tech Stack – React.js, Google Cloud Function, Firebase, TailwindCSS May 2023 - Jan 2026

- Built a room booking platform for UCI engineering organizations using React, Firebase, Tailwind CSS, and Google Cloud services, supporting room scheduling workflows for **500+ students.**
- Developed backend booking and calendar synchronization workflows using **Firebase Functions and Firestore**, automating reservation updates and reducing scheduling conflicts across student organizations.

Theasourse.io — Club Treasury Management Platform | Tech Stack – React.js,Servant, Postgres, SupaBase Jan 2026 - present

- Developed a full-stack treasury management platform used by **20+ university Club** to manage dues, transactions, and member payment tracking using **React, TypeScript, PostgreSQL, and a Haskell Servant backend.**
- Built Stripe-integrated payment workflows and backend financial APIs for club treasurers, streamlining online dues collection and centralized transaction management for student organizations.

EXPERIENCE

Full Stack Software Engineering Intern - YC X25 San Francisco, CA
Tegore.ai 10/25 - Present

- Developed **14+ interactive learning tools using React and TypeScript**, including graphing interfaces, sketch canvases, calculators, matching systems, and dynamic math practice components for AI-guided tutoring sessions.
- Built **RAG-**based retrieval and preprocessing pipelines using Python and vector-search workflows to generate AI tutoring lessons from textbook content.
- Implemented Redis-based caching to reduce repeated AI requests, lowering token usage by approximately **30% during live tutoring sessions.**
- Integrated **Docker environments** for Python backend services, reducing local setup inconsistencies and simplifying development workflows.

Full Stack Software Engineering Intern Irvine, CA
Panasonic Avionics Corporation 06/25 - present

- Developed and optimized maintenance dashboard interfaces using JavaScript and Node.js, **boosting frontend performance by 35%**.
- Implemented asynchronous caching and data-processing pipelines for aircraft fault-report exports, reducing large diagnostic retrieval times by **40%.**
- Engineered RESTful APIs and Linux-based service integrations for aircraft maintenance and diagnostic systems, streamlining communication between mounted devices and internal tooling.
- Built **automated CI/CD** and testing pipelines using Selenium, Jest, Bash, and Linux tooling, improving deployment reliability and reducing manual validation effort.

Software Developer Researcher Irvine, CA
Wayne Hayes Lab, UCI 01/25 - Present

- Developed **frontend components and job-management** interfaces using React and TypeScript to monitor long-running Bash and neural-network alignment.
- Implemented authentication and database integration using **Supabase and PostgreSQL** for a public-facing computational biology research
- Deployed and maintained Linux-based web infrastructure using **virtual machines, Apache, NGINX, and port-forwarding**
- **Integrated CI/CD and automated deployment pipelines** for distributed research services, improving reliability of backend updates and reducing manual deployment overhead.

Open Source Contributor Irvine, CA
DataFrame - DataHaskell 01/26 - Present

- Optimized Parquet decoding workflows in Haskell DataFrame libraries by reducing intermediate allocations, improving large dataset read performance by **approximately 25%.**
- **Implemented compression and binary parsing improvements** for Parquet ingestion pipelines, expanding compatibility across multiple dataset formats.
- Contributed automated testing and benchmarking utilities for DataFrame serialization workflows, **reducing parsing regressions and improving library reliability during development**