

Ali Momennasab

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Education

California State Polytechnic University, Pomona

8/2022 - 12/2025 (Expected)

Bachelor of Science, Computer Science

Pomona, CA

- GPA: 3.93/4.0
- Relevant Coursework: Data Structures, Algorithms, Machine Learning, Cloud Computing, GPU Computing
- Activities & Awards: Computer Science Society, Software Engineering Association, Dean's List

Experience

Cardiac Vision Lab, University of California, San Francisco

6/2023 - Present

- Researching deep learning segmentation of hearts in ultrasound images under Professor Jan Christoph.
- Implemented a U-Net model with Pytorch to simultaneously process three consecutive ultrasound heart frames, resulting in a 16% improvement in F1 score and more realistic segmentations.
- Automated the generation of synthetic 3D heart ultrasound volumes in MATLAB, producing hundreds per day to increase our model training data.

Code Ninjas Hacienda Heights

6/2023 - 8/2024

- Taught classrooms of 20+ elementary to high school-aged students programming and problem-solving skills with Unity, Roblox Studio, and Microsoft MakeCode.
- Led weekly website development summer camps, co-developing and teaching a hands-on HTML, CSS, and JavaScript curriculum.

Projects

AI Research Paper Summarizer | github.com/alimomennasab/paper-summarizer

6/2025

- Developed a full-stack web app using React, Next.js, and Flask that lets users upload scientific PDFs and receive summarized outputs via the OpenAI GPT-4o API.
- Integrated file upload handling, PDF text extraction, and prompt engineering to generate high-quality, real-time summaries of academic content.

DomainFilms Movie Streaming | github.com/ethan-ngo/CS4800-Netflix

12/2024

- Developed a movie streaming platform using React Native and Expo, enabling users to browse, search, and stream movies across devices.
- Designed and implemented a personalized movie recommendation algorithm that analyzes user watch history and preferences stored in MongoDB and accessed through Express.js endpoints.

NFL Mock Draft Simulator | github.com/alimomennasab/NFLMockDraft

8/2024

- Created an NFL mock draft simulator by web scraping data for 32 NFL teams, 250+ draft picks, and 200+ draft prospects with Selenium, storing the collected data in a PostgreSQL database backend.
- Designed and implemented a responsive user interface with React and TailwindCSS, featuring draft simulation and an interactive trade system.
- Implemented server-side rendering and API routes with Next.js, utilizing Prisma for efficient database queries.

BroncoDirectMe | brncodirect.me

8/2022

- Contributed to a Chrome extension used by 400+ Cal Poly Pomona students to streamline class registration, which earned the Google Featured Extension badge for quality and usability.
- Developed new portal features with React, TypeScript, and Material UI, including average GPA displays and RateMyProfessor integration via REST APIs.
- Designed modernized website interface mockups using Figma, enhancing the portal user experience.

Skills

Languages: Java, C/C++/CUDA C, Python, TypeScript/JavaScript, Swift, Kotlin

Frameworks & Databases: React, Next.js, Node.js, MongoDB, PostgreSQL, Prisma, Express, PyTorch, TensorFlow

Tools & Development: GitHub/GitLab, Figma