

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: 3.92/4.0
- Relevant Coursework: Data Structures, Algorithms, Machine Learning, Cloud Computing
- Activities & Awards: Computer Science Society, Software Engineering Association, Dean's List

Experience

Cardiac Vision Lab, University of California, San Francisco

6/2023 - Present

Research Assistant

Remote

- Researching deep learning segmentation of hearts in ultrasounds under Professor Jan Christoph.
- Developed MATLAB script for generating realistic synthetic ultrasound data from heart point clouds.
- Training U-Net model with my generated synthetic data, improving the resulting segmentations of the model from previous training data.

Code Ninjas

6/2023 - 8/2024

Programming Tutor

Hacienda Heights, CA

- Taught classrooms of 20+ elementary school-aged children programming and problem-solving skills with HTML/CSS/JavaScript.

Projects

Leaf Disease Classification | github.com/alimomennasab/LeafDiseaseClassification

8/2024 - 12/2024

- Implemented and trained a ResNet-50 model with 10,000 leaf images using Pytorch.
- Achieved an accuracy of 94% across 10 tomato disease classes with high precision (0.94 macro avg) and recall (0.94 macro avg).

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

6/2024 - 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.
- 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 | broncodirect.me

8/2022 - 5/2024

- Contributed to BroncoDirectMe, a web extension with 350+ users that improves Cal Poly Pomona's class registration portal.
- Utilized React, TypeScript, and Material UI for new portal features, such as displaying average course GPAs and RateMyProfessor data fetched using REST API's, increasing the functionality of the portal.
- Designed modernized website UI mockup using Figma, enhancing the user experience and presentation of the portal.
- Coordinated multi-week agile sprints for 20+ Cal Poly Pomona students by writing main objectives, technical tasks, and pull request acceptance criteria. Participated in 100% of team scrums.
- Achieved the Google Featured Extension badge by adhering to Chrome Web Store's best practices, increasing visibility and user engagement.

Skills

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

Frameworks: React, Next.js, MUI, TailwindCSS, Prisma, Selenium, PyTorch, TensorFlow, ARKit

Development: GitHub/GitLab, Figma, LaTeX