

Emmanuel Cobian

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EDUCATION

University of California, Berkeley

Bachelor of Arts in Computer Science

Berkeley, CA

GPA: 3.8

EXPERIENCE

Software Engineering Intern

Goplai

May 2025 – August 2025

Berkeley, CA

- Fine-tuned custom YOLOv11 and SlowFast models for basketball player, ball, and hoop detection, manually annotating 500+ frames and clips to create high-quality datasets.
- Built a cloud-native, real-time basketball analysis API with FastAPI, integrating detection, player tracking, scoring, and ball possession logic, with AWS S3 storage and WebSocket streaming.
- Deployed application in Docker containers on AWS EC2 with automated health checks and systemd service orchestration, ensuring scalable, production-grade reliability.

Software Developer

UC Berkeley MBA Program for Executives

May 2023 – May 2024

Berkeley, CA

- Developed a Next.js web application to streamline the creation of personalized teams, reducing manual task completion time from days to minutes, achieving a 400x efficiency improvement.
- Designed an approximation algorithm to dynamically generate optimally balanced teams based on team size, gender diversity, experience levels, and work history.
- Collaborated with multiple departments to expand functionality, adding new criteria and enhancing data structures for broader use cases.

Tech Fellow

UC Berkeley Career Center

Sep 2021 – May 2023

Berkeley, CA

- Tested and implemented a Python script using BeautifulSoup and Selenium to scrape content from over 1000+ employer websites to search for DEI Employment keywords.
- Parsed, analyzed, and visualized 200k+ data points using the pandas library in Python to provide tangible and understandable solutions to a non-technical audience.
- Built an interactive employee on-boarding web page using HTML/CSS, enhancing the user experience while streamlining the on-boarding process.

Data Challenge Finalist

Meta

Mar 2022 – Sep 2022

Berkeley, CA

- Explored, analyzed and aggregated large data sets in Python to provide actionable information and create intuitive visualizations to convey those results to a broad audience.
- Presented a data-driven product pitch, which included data visualizations, business strategy, and recommendations to Meta Data Scientists and Engineers.

PROJECTS

ICE Breakers | *React Native, Tailwind CSS, Firebase Auth, Express.js, Git*

- Developed a React Native mobile app that provides multilingual emergency support for immigrant communities, featuring a panic button, Red Card tool, and local resource integration.

Rate My Classes | *React, NextAuth.js, Python, MySQL, Selenium, BeautifulSoup, Git*

- Built a full-stack web app enabling UC Berkeley students to rate/review courses. Implemented secure authentication with NextAuth.js and a relational MySQL Database.

Exposify | *Spotify API, React, Next.js, Git*

- Music insights web app integrating the Spotify API. Built a backend with Next.js API routes to analyze top artists/playlists and generate personalized profiles.

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C/C++, SQL, HTML/CSS, Go

Frameworks: React, Next.js, Node.js, Bootstrap, express.js

Developer Tools: AWS (EC2, S3), Docker, Postman, Git, Google Cloud Platform, VS Code

Libraries: pandas, NumPy, Matplotlib, SciPy, Scikit-learn, OpenMP, BeautifulSoup, Selenium