Marc Bernardino

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EDUCATION

Stanford University

June 2026 (Expected)

Bachelor of Science in Computer Science

Stanford, CA

- **GPA**: 3.7/4.0
- Relevant Coursework: Intro to Computer Science, Data Structures and Algorithms, Standard C++ Programming, Probability for Computer Scientists, Scientific Python, Social & Economic Impacts of Artificial Intelligence
- Expected Coursework: Multivariable Calculus and Linear Algebra, Mathematical Foundations of Computing, Introduction to Product Management, Computer Organization and Systems Design

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, HTML/CSS, Java, C++, Python

Technologies: Node.js, React, React Native, Next.js, Express, TailwindCSS, Flask, TensorFlow, PyTorch, OpenCV

Developer Tools: Jira, Git, VS Code, Amazon Web Services, Google Cloud Platform, DigitalOcean

Databases: MongoDB, DynamoDB, Firebase, PostgreSQL

EXPERIENCE

Software Engineering Intern

January 2024 - Present

Hyperlink

San Francisco, CA

- Working on two teams to implement new full-stack features (using Next.js, React, PostgreSQL, Node.js) and to conduct unit testing/code refactoring for an artificial intelligence playground application.
- Spearheading a contextualized document generation feature featuring Retrieval-Augmented Generation (RAG) models using TypeScript, Node.js, and LlamaIndex.

Software Engineering Intern

July 2023 – September 2023

Notebook Labs (YC S22)

New York, NY

- Co-developed **Zephyr**, a decentralized, peer-to-peer cryptocurrency exchange application built using zk-SNARKs.
- Implemented a backend server in Node.js, JavaScript, Express.js, and Alchemy SDK with 15+ functions and 10+ **API routes** for verifying captchas, calling smart contracts, and interacting with Amazon DynamoDB.
- Designed and applied over 40+ responsive frontend components for interfacing with the Zephyr web application and the Zephyr landing page using React with Next.js, TypeScript, and TailwindCSS.
- Engineered 20+ backend functions that connect the clientside to Ethereum networks, wallets, and servers (Email relayer, Zero-knowledge prover, Sybil-resistant server) using Node.js, Wagmi, ethers.js, and RESTful APIs.

Scientific Computing Intern, TARGET Program

June 2022 - August 2022

Fermi National Accelerator Laboratory (Fermilab)

Batavia, IL

- Constructed a hybrid camera and Neural Network overlay with Xilinx Vivado and HDL, allowing for simultaneous and low-latency Neural Network inferences with a webcam on Pyng-Z2 hardware.
- Produced a Computer Vision demo for FPGA architecture with Python, hls4ml, and OpenCV that can classify Pokémon with 83.5% detection accuracy.
- Trained, optimized, and converted Convolutional Neural Networks into high-level synthesis language (HLS) for use with FPGAs with hls4ml, resulting in models with 95% prediction accuracy.

PROJECTS

Serenade | TypeScript, Next.js, Python, Convex, Flask

- Developed a full-stack web application for an AI-powered personalized therapeutic listening experience.
- Created 10+ API routes to connect APIs (Spotify, Replicate), Convex database, and models (MusicGen, GPT-4).
- Established front-end with 5 components for seamless UI/UX using TailwindCSS, DaisyUI, and CSS animations.

DiscoDB | Python, Flask, JavaScript, React, Recharts

- Collaborated with UIUC students at HackIllinois on a NoSQL database storing data via Discord.
- Co-created 20+ functions using Flask that handles CRUD, Queries, etc., between Discord and the database.
- Assembled a dashboard that charts 4 data points from DiscoDB logs using JavaScript, React, and Recharts.

NotifAI | JavaScript, React Native, Expo, Python, Flask

- Co-designed an app that utilizes Computer Vision to scan text and give a summarization for Cohere's Hackathon.
- Built a React Native app with 6+ components integrated with Google Vision AI for camera text extraction.
- Assisted in integrating a Flask backend with 3 API routes, enabling word embeddings via Cohere AI's Embedding API.