COLIN PERRY

+1 (949) 606-6878 | cperry27@g.ucla.edu | cperry.codes | github.com/17ColinMiPerry

EDUCATION

University of California, Los Angeles   **Los Angeles, California**
Bachelor of Science, Electrical Engineering   Sep 2019 – Jun 2023

EXPERIENCE

Fullstack Software Engineer (Open Source)   **Mar 2025 – Present**
Mintplex Labs   *Santa Ana, CA*

- Owned and shipped user-facing AI agent infrastructure using Node.js used by hundreds of thousands of users, including agent implementations, embedding pipelines, and reliability tooling
- Implemented the ReAct architecture to grant Cohere reasoning models with tool-calling, with deduplication safeguards to prevent redundant tool calls
- Extended the platform's provider agnostic AI embedding system by integrating OpenRouter embedding models, expanding user choice and flexibility while improving overall user experience
- Rapidly prototyped and iterated user-facing React interfaces using AI-assisted tools like Cursor and gemini-cli to ensure a consistent product vision and provide users with a performant and premium experience

Development Engineer   **Oct 2023 – Dec 2024**
UCLA Nanolab   *Los Angeles, CA*

- Engineered a Python/PyQt control interface with a custom physics library to enforce hardware safety constraints, preventing critical user errors that have historically caused >$100,000 in damages
- Executed structured Design of Experiments (DoE) to optimize etch and lithography parameters, delivering reliable recipes that improved process yields and efficiency for all lab users
- Directed and managed lab assistants in executing essential lab operations, including chemical and supply ordering, inventory management, and chemical waste removal, ensuring smooth operations and safety

Fullstack Web3 Engineer   **Jun 2021 – Sep 2022**
GYS Blockchain Solutions   *Mission Viejo, CA*

- Engineered full-stack web3 apps using React and Solidity, implementing a CI pipeline with Chai.js unit tests to ensure production reliability for thousands of users
- Built internal tools with Python to automate project asset generation, enabling artists to rapidly produce production-ready assets
- Led a team of 4 software engineers, working with cross-disciplinary teams to meet aggressive deadlines on time and under budget
- Drove >$500,000 in launch revenue through design and implementation of the project's tokenomics system

PROJECTS

Journal Club - Scientific Paper Sharing Platform

- Built a full-stack web and mobile platform for sharing and discussing scientific papers, handling frontend (React/React Native + TypeScript) and backend (Express + Firestore) to deliver real-time user collaboration
- Implemented social features (posting, commenting, voting) and access control rules, demonstrating strong user focused product design
- Developed secure authentication and multi-user interaction flows with Firebase Auth and Express to ensure safe collaboration in a multi-user environment

Wafer Defect Detection CNN

- Designed a Convolutional Neural Network in Python + PyTorch to detect defects in wafer maps
- Utilized synthetic minority oversampling to address data imbalances and improve overall model performance
- Leveraged cloud computing resources via GCP to train the model with optimized hyperparameters, achieving an overall test accuracy of nearly 95%

SKILLS

Languages & Frameworks: JS/TS, Node.js, Express.js, React/React Native, TailwindCSS, Python, Go, C++
Backend & Infrastructure: Kubernetes, Docker, Linux, CI/CD, SQL(PostgreSQL, SQLite), NoSQL(Firestore)