

COLIN PERRY

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EDUCATION

University of California, Los Angeles
Bachelor of Science, Electrical Engineering

Los Angeles, California
Sep 2019 – Jun 2023

EXPERIENCE

Fullstack Software Engineer (Open Source)

Mintplex Labs

Mar 2025 – Present
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

UCLA Nanolab

Oct 2023 – Dec 2024
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

GYS Blockchain Solutions

Jun 2021 – Sep 2022
Mission Viejo, CA

- Designed and implemented full-stack web3 applications, integrating React + JavaScript frontend with backend Solidity smart contract logic to thousands of users
- Designed and executed unit tests for smart contract functions with Chai.js to ensure reliability
- 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)