

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/OSS Maintainer

Mintplex Labs

Mar 2025 – Present
Santa Ana, CA

- Owned and shipped critical full-stack features using Node.js and React + JS/TS to hundreds of thousands of users in a project with >50k GitHub stars
- Equipped non-agentic models with tool use by implementing the ReAct architecture, enabling reasoning and function calling for complex tasks and user queries
- Integrated a selection of additional embedding models for enhanced user experience and model flexibility
- Owned UI/UX stabilization, resolving high priority rendering bugs and implemented quality of life changes requested by the community

Development Engineer

UCLA Nanolab

Oct 2023 – Dec 2024
Los Angeles, CA

- Engineered a Python/PyQt control interface with a custom physics library to validate inputs against hardware specifications, protecting wafer fab equipment and preventing \$400,000+ in potential damage
- Built strong vendor relationships, negotiated discounts, and reduced inventory purchasing costs by over 20%
- Managed laboratory assistants to ensure ISO Class 5 cleanroom standards throughout lab spaces

Software Engineer/Blockchain Developer

GYS Blockchain Solutions

Jun 2021 – Sep 2022
Mission Viejo, CA

- Authored and deployed Solidity smart contracts, integrating them with Web3.js APIs, and built user interfaces using HTML/CSS and JavaScript
- Designed and executed unit tests for smart contract functions with Chai.js to ensure reliability
- Developed Python scripts to automate asset generation processes, streamlining development for artists
- Led a team of 4 software engineers, working with cross-disciplinary teams to meet aggressive deadlines on time and under budget
- Contributed to the generation of over \$500,000 in revenue through the design and implementation of the project's tokenomics systems

PROJECTS

Journal Club - Scientific Paper Sharing Platform

- Published a web and mobile application that enables users to post, browse, and discuss scientific papers via a social voting and comment system, supporting real-time contributions within scientific communities
- Developed clean and approachable UI/UX using TypeScript with React + Tailwind (webapp) and React Native + Nativewind (mobile)
- Integrated Firebase authentication for sign-in and Firestore as a real-time NoSQL database to store user-generated posts, comments, and votes
- Defined custom security rules as Express.js middleware to enforce access controls and validate user permissions, securing multi-user interactions

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, React, React Native, TailwindCSS, Python, Go, C/C++

Backend & Infrastructure: Kubernetes, Docker, Linux, CI/CD, SQL(PostgreSQL, SQLite), NoSQL(Firebase)