

Andrew Wang

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EDUCATION

University of California, Irvine

B.S. Computer Science — GPA: 3.90

Irvine, CA

June 2026

EXPERIENCE

UCI Machine Learning Repository

Full-Stack Developer

June 2024 - Present

Irvine, CA

- Developed UC Irvine's machine learning database with 3M yearly active users using Svelte, Typescript, and tRPC
- Introduced 40+ new features and maintained responsiveness using Tailwind CSS, Daisy UI, and Figma
- Manage a Docker deployment and MySQL database using Prisma ORM to manage 1K+ datasets

ICS Student Council

Project Lead - Anteater API

September 2023 - Present

Irvine, CA

- Lead a team of 6 developers to maintain an open-source API providing university data to 40K+ users
- Created an open-source REST and GraphQL API built on Typescript, Drizzle ORM, and Docker
- Deployed on Cloudflare Workers to serve 250K+ daily requests with a Postgres database hosted on AWS RDS

Navy MOVES Institute

Software Engineering Intern

June 2024 - September 2024

Monterey, CA

- Modeled distributed drone operations for anti-submarine warfare using Lua scripting in wargaming environments
- Analyzed autonomous sonobuoy deployment patterns using Python to demonstrate a 80% targeting success rate
- Developed C++ libraries using the OpenDis protocol for real-time Monte-Carlo simulation analysis

Naval Postgraduate School

Software Engineering Intern

June 2022 – September 2023

Monterey, CA

- Architected PyTorch decision trees to optimize close-in missile defense systems against supersonic missile raids
- Optimized weapons loadouts and defense doctrines on 70+ ships to increase simulated survivability by 12%
- Analyzed fragmentation and plate damage statistics in MatLab to formulate new percent kill algorithms

Applied Solar Energy

Data Analyst Intern

June 2023 - September 2023

Pacific Grove, CA

- Analyzed PG&E bills using Python Fourier analysis to model consumer electricity and gas usage habits
- Developed JavaScript algorithms to locate 200+ homes with high solar potential using OpenSolar 3D map data
- Created a SparkSQL database of 50+ solar panels and batteries for efficient analysis with Pandas and PySpark

PROJECTS

GE-Z: CC Course Search | *TS, Express, Prisma, Postgres, OpenCV*

November 2023 – Present

- Developed an Express.js backend for a comprehensive community college course finder with 250+ monthly users
- Built a custom PDF parser using Python, OpenCV, and Tesseract OCR to extract course data from 2K+ files
- Designed a Postgres database with Prisma ORM and deployed on AWS Lightsail to efficiently store 100K courses

Assessem: CS Education Software | *PHP, Laravel, Livewire, Tailwind*

August 2023 – Present

- Created a PHP Laravel app providing CS-focused teaching & learning solutions for Monterey Peninsula College
- Designed automated Docker containers to securely run and test Java, Python, & C++ code submissions
- Integrated a SQLite database with the CanvasLMS API to automate assignments and grading for 400+ students

Navy Efficient Rocketry Project | *C++, RaspberryPi, Python*

June 2023 – September 2023

- Integrated and optimized inertial measurement microcontrollers for decoy rockets in missile raid scenarios
- Performed Python analysis on historical flight data to tune proportional-integral-derivative stabilization algorithms
- Developed C++ programs with the Raspberry Pi SDK to account for control lag & prevent fin over-correction

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, SQL, HTML, CSS, Python, Java, Kotlin, C++, C#, PHP, Lua, R, Matlab, Julia

Tools & Libraries: Git, Bash, Node, Express, Prisma, PostgreSQL, MySQL, Redis, MongoDB, Docker, REST, GraphQL, Next.js, React, SvelteKit, Laravel, Tailwind, WebSockets, PyTorch, Unity, Google Cloud, AWS, Cloudflare