

Andrew Wang

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EDUCATION

University of California, Irvine

Bachelor of Science in Computer Science (Honors)

June 2025

Irvine, CA

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, SQL, HTML/CSS, Python, Java, C/C++, PHP, Lua, R, Matlab, Pascal

Tools and Libraries:: Git, Bash, Node.js, Prisma, PostgreSQL, Flask, FastAPI, REST, Google Cloud Platform

EXPERIENCE

Montage Health

Software Developer

May 2023 – Present

Monterey, CA

- Developed and managed Flask web apps automating the design of professional-level promotional flyers, posted on bulletins and websites receiving 1,000+ viewer traffic per month
- Coordinated regularly with organizers and designers to provide custom updates in user-interface and functionality
- Boosted website efficiency to save 250+ hours of manual workload (\$10,000+) per year

Applied Solar Energy

Data Analyst Intern

June 2023 – Aug. 2023

Pacific Grove, CA


- Surveyed PG&E energy bills using R to optimize the cost/benefit of solar battery systems
- Implemented fast Fourier transform algorithms to estimate hourly electricity usage
- Created software to optimize for battery power during peak hours, saving consumers an average of \$200+ per year
- Lead weekly meetings and delegated tasks between programming and solar system design teams to ensure timely completion of the project

PROJECTS

GE-Z  | *Node.js, Prisma, PostgreSQL, OpenCV, Tesseract OCR, AWS*

Nov. 2023 – Present


- Developed the backend for GE-Z, a comprehensive community college course finder, using Node.js and Typescript
- Built a custom PDF parser using Python computer vision preprocessing and OCR to extract course data
- Designed and deployed a custom Postgres database in Prisma to efficiently store and retrieve 100,000+ courses

Rebold  | *Python, Flask, SQLite, Canvas LMS API*

May 2023 – Present

- Deployed a Flask application providing CS-focused teaching & learning solutions for Monterey Peninsula College
- Implemented the Canvas LMS API to streamline the process for creating assignments and importing grades
- Collaborated with the CS department chair to best provide constructive and interactive feedback to students
- Utilized by 40+ students per academic quarter in introductory and advanced CS courses


RESEARCH

Lethality Analysis of Notional Anti-Ship Warheads 

Modeling & Simulation Research Intern – MOVES Institute

June 2023 – Sep. 2023

- Analyzed the lethality of new reactive material warheads using physics simulations and Python data analysis
- Tested reactive materials explosives against empirical models to show a 400% increase in fragmentation energy
- Determined trends in lethality based on specific warhead designs by plotting fragmentation and detonation pressure metrics using the Matplotlib library

AI Strategies in Maritime Missile Defense 

Wargaming Research Intern – Naval Postgraduate School

June 2022 – Aug. 2022

- Modeled maritime missile defense environments using Lua and wargaming software for use in AI optimization
- Utilized Monte-Carlo analysis & Python Pandas to gather baseline survivability data on current defense strategies
- Employed a preliminary decision tree learning algorithm in Python scikit-learn to demonstrate a 20% increased survival rate in simulated maritime missile raid scenarios