



Education

CALIFORNIA STATE UNIVERSITY DOMINGUEZ HILLS

Bachelor of Science in Computer Science

Relevant Experience



Lead Apple Teacher | Apple | Los Angeles, CA | Aug, 2021 - Sept, 2023 |

- Directed a team of 10 Apple Teachers to introduce fundamental computer science concepts to 13 underprivileged middle schools and high schools, increasing STEM engagement.
- Facilitated weekly training sessions for both team members and students, ensuring a 83% proficiency in the Apple Education curriculum with a focus on Swift, robotics integrations, and JavaScript.
- Forged collaborations with LAUSD and Apple, successfully architecting the program's infrastructure to address key client requirements and expanding its institutions from 3 to 13, representing a 433% growth.



Reverse Engineering Intern | TFHRC | McLean, VA | May, 2023 - Aug, 2023 |

- Authored a comprehensive documentation repository on openpilot's integration, serving as a pivotal resource for federal agents resulting in an improvement in CDA testing accuracy and efficiency.
- Resolved 9 configuration challenges, with a specific focus on poetry-shell, Carla, Openpilot and created Shell configurations, reducing integration-related errors by 22% guaranteeing consistency across federal vehicle tests.
- Employed Netflix's (vmfa) machine learning algorithms to optimize video quality assessment, enhancing the quality metrics of FHWA public challenges' content by 7%, and setting a gold standard for federal multimedia deliverables.

Research



Mutation Testing | LREU | Mentor: Dr.Ayad | Feb, 2023 ~ Oct, 2023 |

- Integrated sophisticated Java benchmark and Maven projects to deliberately introduce small mutations in the code and verify their detection.
- Leveraged Pitest and LittleDarwin to instigate mutations across 500+ code lines, attaining a mutation coverage of 95%.
- Crafted Python scripts that analyzed 10,000+ Lines of Code (LOC), deriving an average function length and aiding in the optimization of code quality by highlighting areas for refactoring.



Front-End Explorer | GOOGLE | Mentor: Dr.Tang | Jan, 2023 ~ Present |

- Engineered a custom light-dark theme switching mechanism.
- Employed advanced CSS for dynamic text sizing across devices, ensuring a consistent UX for 95% of users regardless of device size.
- Structured a Next.js portfolio comprising of 30+ components, segregated assets, and files, ensuring an organized and maintainable codebase.
- Maintained an in-depth research markdown, referencing 20+ vital resources; a commitment to staying abreast of industry standards and innovations.
- Deployed prioritized object loading for 50+ page elements, improving page responsiveness by 30% and reducing bounce rates.

Technical Expertise

database: mysql, postgresql, cassandra.

cloud: google cloud.

patterns: repository, singleton, factory, model-view-controller.

Languages

expert: shell scripting, java.

proficient: python, yaml, toml, html, css, javascript.

novice: c++, c, make, numpy, pandas, tensorflow, maven.

Dev Ecosystem

editors & ides: vim, vscode, sublime, jetbrain-toolbox.

back-end: spring-boot, django, postman.

front-end: react, nextjs, tailwindcss.

libs & tools: tensorflow, maven, auth.

terminals & shells: tmux, fish, bash, zsh, kitty, alacritty.

version & file controls:

git, nvim, exa, lf, lazygit, starship.

window controls: yabai, skhd, karabiner.

documentation: goodnotes, obsidian.md.

OS & Infrastructure

standard distributions: mac, windows.

linux distributions: ubuntu - kali - arch.

package & dependency management:

npm, npx, pip3, homebrew, poetry-shell.

Machine Learning

libraries: pandas, seaborn, numpy, matplotlib.

techniques: classification, unsupervised learning, hypothesis function, vectorization, regression.

Data Structures & Algorithms

data structures: hashmaps, stacks, sorting matrices, binary trees, two pointers, linked lists.

algorithms: breadth-first search (BFS), depth-first search (DFS), greedy algorithms, dynamic programming, divide and conquer, backtracking, binary search.