JACK CHANG

PROGRAMMER

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EDUCATION

UC Irvine
Computer Science
Class of 2026
GPA: 4.0/4.0

Canyon Crest Academy
Class of 2022
GPA: 3.82/4.0

Mentorship with Ex-Google Game Studio Founder
(Good Trouble)
May 2023 - Aug 2023

RELEVANT COURSEWORK

Intro to Data Structures
Java, C++, Unity Programming I
Advanced Python
Discrete Structures
Calculus I, II, III
Linear Algebra
Differential Equations
Assembly Language &
Machine Architecture

Other Programs:
UCSD COSMOS (2021)
CMU Summer Session (2021)

SKILLS

Proficient:
C++, Unity & C#, Python,
Java, Node JS, Electron JS

Familiar:
Git, HTML/CSS, Windows,
Linux, PC Hardware

WORK EXPERIENCE

Software Engineer

AI Tech Knowledge (June 2023 - Present)
- Used NodeJS to develop a service for Windows and Mac to queue and solve models for an AI scheduler webapp
- Used C++ & Python with Google's OR-Tools library for constraint optimization, and multithreaded cores for faster runtime
- Used ElectronJS to create an authenticator app that communicated with Supabase

Research Scientist

MetaGuru (June 2023 - November 2023)
- Researched the capabilities of ChatGPT, possible training and modifications, and cross language limitations
- Using OpenAI's ChatGPT API in Python, developed a preliminary LLM that helped employees understand HR rules by answering their questions

Intern Game Programmer

Good Trouble (October 2022 - March 2023)
- Gained practical experience in gameplay programming and enhanced my C# & Unity mastery, problem-solving + debugging competency, and communication skills
- Designed and created the aiming system and UI menu for a car racing and shooting game for the PC and Xbox platforms, using Unity's new input system, and object pooling to optimize projectiles

Curriculum Developer & Instructor

NexStream Technical Education (May 2022 - May 2023)
- Developed and taught an Introduction to Pygame & Advanced Pygame programming course in Summer 2022
- Developed and taught a Bronze level USA Computing Olympiad logic and algorithms courses in the 2022-2023 school year, and developed a Silver level course for Summer 2023

PROJECTS

- **Virtual Classroom (2021):** Created an interactive 3D virtual classroom environment using Unity & C#, with the Mirror library for networking
- **Sensor Bot (2021):** Created a mechanism to detect & map nearby objects, using a camera and ultrasonic + avoidance + motion sensors

TESTS/AWARDS

- Eagle Scout (Oct 2021)
- C++ Certified Professional Programmer through C++ Institute (Jan 2021)
- CompTIA A+ Certified (July 2020, renewed July 2023)
- USA Computing Olympiad Gold Division Member (April 2020)
- SAT Subject Math II: 800