JACK CHANG
PROGRAMMER

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https://jackchang.dev

EDUCATION

UC Irvine
Class of 2026
GPA: 4.0

Canyon Crest Academy
Class of 2022
GPA: 3.82/4.0

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

RELEVANT COURSEWORK

Completed:
Intro to Data Structures
Java, C++, Unity Programming I
Advanced Python
Discrete Structures
Calculus I, II, III
Linear Algebra

Completed by June 2024:
Differential Equations
Assembly Language

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

HOBBIES

Guitar; jazz band
Tennis & Badminton
Chess; 2200 chess.com
Scuba certified

WORK EXPERIENCE

Paid 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

Paid 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
- All courses are uploaded to nexstream.tek.com for online learning

Intern Programmer & Data Scientist
NexStream Technical Education (January 2022 - May 2022)
- Created a backend program to collect data on students' progress, time spent, and accuracy using Javascript xAPI with Watershed's Learning Record Store
- Implemented algorithms using Python to check students' progress and accuracy on open-ended questions to improve courses

PROJECTS

- **Toasty's RPG Bot (2022):** Created an interactive Discord bot using Python + Discord's API, where users can play through dungeons using text commands
- **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
- **Aluminum Narwhals Robot (2020):** Programmed the competition robot's drivetrain in Java for the Aluminum Narwhals, FRC Team 3128
- **Synthwave Siege (2019):** Created a futuristic 3D Tower Defense game, applying breadth-first search for the enemy's pathfinding

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