

Jason Ho

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## **EDUCATION**

**UNIVERSITY OF HOUSTON, BS Computer Science, Houston, TX**

GPA: 3.6/4.0

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## **EXPERIENCE**

### **Teacher's Assistant - Intro to Programming**

- Helped professor grade assignments
- Helped first year students understand programming

## **PROJECTS**

### Rooms

- Used WebRTC, WebSockets to build a peer-to-peer connection in order to let people talk to each other
- Utilized Typescript in order to avoid type bugs that could slow down development
- ReactJS was used as the UI library in order to organize client-side logic and help maintain stateful logic
- Overall framework that was used, was NextJS
- <https://github.com/cod1r/rooms>

### Screenpew

- Screenshot software for linux systems using the X11 display server
- C was used to interact with the X11 API (XCB)
- <https://github.com/cod1r/screenpew>

### Master Turtle

- Used TKinter and the python turtle library to create an implementation of Dijkstra's algorithm
- <https://github.com/cod1r/MasterTurtle>

### Tetris

- Implemented the Tetris game that loosely follows the Tetris guidelines
- Used C++ alongside SDL2 to build a native desktop Tetris game
- Used many parts of the C++ STL such as pairs, tuples, vectors, static arrays, etc.
- <https://github.com/cod1r/Tetris>

### Andrew

- Wrote a Discord bot from scratch that acts as an HTTP web server (not 7230 compliant) taking requests from Discord servers and returning a response.
- Uses OpenSSL to handle the TLS protocol so that secure requests can be made to the Discord API.
- <https://github.com/cod1r/andrew>

### TCAS

- Implemented a simulation of the Traffic Collision Avoidance System (TCAS) using WebRTC, WebSockets
- HTML/JS/CSS was used for the frontend
- Typescript was used to avoid type bugs
- Trigonometry was used to draw the graphics and move the positions of connected clients
- <https://github.com/cod1r/tcas>

### RTMP

- Implemented the Real Time Messaging Protocol (RTMP) which is used by Youtube, Twitch to deliver real time streams to viewers
- Written in C and uses Unix sockets (only accepts one socket connection though)
- Able to connect to OBS or StreamLabs and generate MP4 segments that can be used to stream video across HTTP Live Streaming (HLS)
- <https://github.com/cod1r/rtmp>

## **ADDITIONAL**

English/Vietnamese

C/C++/Rust/Zig

Python/Javascript/NodeJS

HTML/CSS

git/linux/docker