

RICHMOND LIEW

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EDUCATION

Northeastern University, Boston, MA

GPA: 3.7

Bachelor of Science in Computer Engineering

May 2020

PROFESSIONAL EXPERIENCE

Northeastern University - SICA-Lab, Boston, MA

January 2020 - May 2020

Research Assistant

- Automated the installation process of kernel and software dependencies for hardware sensors on Jetson TX2s
- Implemented a decentralized Software Defined Radio Network for communication between autonomous drones

Micro-Leads, Boston, MA

January - June 2019

Computer Engineering Intern

- Diagnosed point of failure of previous test setup and wrote Python scripts to salvage data from faulty brain implants, saving the company ~\$80,000
- Created a full stack web-app to track behavior of brain implants leading to successful characterization of electrode isolation behavior for the first time in the project's 2 year life cycle

ACADEMIC & PASSION PROJECTS

SynthWave

- Currently developing a synthesiser plugin using the Juce framework (C++). Supports ADSR and Reverb tuning.

BitTorrent Client

- Developed a BitTorrent protocol client from scratch in Python. Source [here](#)

Chip-8 Emulator

- Developed a Chip-8 interpreter to emulate original games from the 1980s. Built with React and Typescript. Demo [here](#). Source [here](#)

Microsoft Typescript (Open Source Contribution)

- Fixed compiler [issue](#) regarding misleading error message during incompatible type assignment.

ReturnMe

- Developed a full-stack app for a fictional returns pick up service. Built user authentication with Passport.js; Created schemas with Mongoose connected to MongoDB Atlas; UI made with React. Demo [here](#). Source [here](#).

Mailbag

- Developed a full stack email client (Typescript). Utilized nodemailer to connect to SMTP servers, saves user created contacts in an NeDB database. Source [here](#).

Harvard CS50 - Artificial Intelligence (EdX Coursework)

- Leveraged basic AI algorithms and reinforcement learning to develop a series of simple game AIs.
- Developed a convolutional neural network to identify the GTSRB dataset. Source [here](#)

PyCollect

- Leveraged Gmail and Venmo API to automate the collection process of rent and utilities for my rental business.

Java Microsoft Excel Clone

- Developed a spreadsheet application that supports simple arithmetic, cycle detection and infinite scrolling.

TECHNICAL SKILLS

Programming Languages: (Proficient) JavaScript, Typescript, Python; (Familiar) Java, C++, MATLAB, MIPS, Assembly, Verilog, SQL

Technologies & Frameworks: React, Vue, Node.js, MongoDB, Express, HTML5, CSS3, Git, Heroku, AWS, OpenCV, TensorFlow, scikit-learn