Jarrod Leong

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EDUCATION

Cal State University Fullerton **Fullerton, CA**
Master of Computer Science *Jun 2024 (Expected)*

- **GPA:** 4.0
- **Skills: Relevant Coursework:** Advanced Databases, Backend Engineering, Artificial Neural Networks

University of California, Irvine **Irvine, CA**
Bachelor of Science in Computer Science *Graduated Jun 2020*

- **Relevant Coursework:** ML/AI, Computer Network+Security, Operating Systems, Embedded Systems

PROFESSIONAL EXPERIENCE

Know Corp **Remote**
Software Developer - Backend/AI *Nov 2022 – Present*

- Deployed software for quick testing and development onto Google Cloud Platform, spearheading agile workflow in an early startup environment, working with a 10 person cross functional team.
- Developed and maintained three REST services using Docker to extract data from different file types including pdf, mp4, mp3 and websites (web scraping and youtube). Processed and saved data into a PostgreSQL database and interfaced with GCP buckets to store additional data.
- Utilized different technologies including OpenAI's Whisper model for audio extraction and BERT models for contextual spell checking. Utilized FastAPI to develop scalable services.

CodeSpeak Labs **Irvine, CA**
Computer Science Instructor *Jan 2017 – Present*

- Teach computer science using tools including Scratch, Python, HTML, CSS, and JavaScript.
- Instruct students to develop programs on different hardware like robots and embedded systems.
- Developed program to teach frontend frameworks (Bootstrap and game development) using JavaScript.

PROJECTS

Rubik's Cube Solver
Developer *Jan 2022 – Mar 2022*

- Developed a Deep Learning Rubik's Cube solver that can solve a randomly scrambled cube.
- Implemented a 3D convolutional neural network (CNN) as a learned guidance function (LGF) trained on 3 million randomly generated cube states using strict rules to help data robustness.
- Employed the CNN as an LGF for an evolutionary machine learning algorithm, stepping through different states while picking the best cube states from the offspring to continue the algorithm.

Home Fan Controller
Developer *Aug 2021 – Sept 2021*

- Analyzed and recorded radio frequencies sent by fan remote controllers using a Software Defined Radio (SDR) and converting the recorded frequencies to bits to store on my PC.
- Utilized Raspberry Pi to host home server and send radio signals to control fans from a web application.
- Created a web interface using Flask to control the fans in my house while connected via LAN.

Spotify Playlist Generator
Developer *Aug 2020 – Sept 2020*

- Created a program to automatically create playlists in Spotify from your saved music.
- Utilized a Multi-Layered Perceptron (MLP) neural net trained on over 1200 different songs gathered from different playlists to develop and train a classification model using song metadata.
- Used the Spotify API based on REST principles, to get user data by utilizing OAuth2 to authenticate users and using POST and GET requests to get, generate, and modify playlists.

ADDITIONAL INFORMATION

Technical Skills: Python, C++, Java, HTML, CSS, Pytorch, Linux, SQL, noSQL, Flask, Docker, FastAPI
Interests: Specialty Coffee, Video Games (Valorant, Osu, League of Legends), Chess, Basketball