Austin Leung

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Education

Carnegie Mellon University *Pittsburgh, PA*
B.S. – Double Major in Information Systems and Computer Science (GPA: 4.0/4.0) *Aug 2018 – May 2022*

- Quantitative Social Science Scholars Program
- Relevant Coursework: Principles of Imperative Computation (TA), Fundamentals of Programming and CS, The Information Systems Milieux

Professional Experience

Carnegie Mellon University School of Computer Science *Pittsburgh, PA*
Teaching Assistant - 15-122 Principles of Imperative Computation *Aug 2019 – Present*

- Teach imperative programming and methods for ensuring correctness of programs through specific applications to data structures and algorithms in C
- Lead weekly labs, participate in grading sessions, and hold office hours for over 500 students

MultiComp Lab - Carnegie Mellon University School of Computer Science *Pittsburgh, PA*
Data & Machine Learning Research Assistant *May 2019 – Present*

- Explore web data crawling mechanisms to compile and release multimodal datasets
- Build deep learning multilayer perceptrons and convolutional neural networks with PyTorch to extract computational descriptors and detect multimodal patterns

Adagio Digital Guitar School *Pittsburgh, PA*
Technology Intern *May 2019 – Present*

- Lead initial design and development of Adagio's website and initial features to reach minimum viable product for customers and investors
- Analyze competition to help determine essential qualities of Adagio's digital guitar learning experience and prioritize website features

Projects

The Reddit Sentiment Analyzer (1st Place - CodeDay Pittsburgh Spring 2019)

- Built a web app and Google Chrome extension using React to visualize colorized sentiment of subreddit submission titles, comment chains, or a user's activity retrieved from the Reddit API
- Utilized IBM's Tone Analyzer API with Express.js and Node.js to analyze comment and submission text, assigning colors corresponding to different emotions and intensities

Who's That Pokémon?

- Trained a multilayer perceptron and convolutional neural network using PyTorch to recognize images of over 900 Pokémon

AI Mahjong

- Developed a fully functional Mahjong game with multiplayer functionality within a Python GUI
- Designed a strong artificial intelligence process to suggest optimal moves for a user-centric assist mode training player strategy

Find the Sets

- Created a time-based game in Java and Processing matching sets of images based on shape, color and background properties
- Implemented a feature that assesses and tailors game difficulty to the player's reaction time

Programming Languages

Proficient: Python (PyTorch), C, HTML, CSS
Familiar: Java, JavaScript (React, Node, Express, jQuery), SQL (MySQL, PostgreSQL), R