Andrew Tsui

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Education

University of California, Irvine – Irvine, CA	Expected June 2021
B.S. in Computer Science	Cumulative GPA: 3.72/4.0

Relevant Coursework: Python Programming and Libraries, Programming in C/C++, Data Structure Implementation and Analysis, Principles of Operating Systems, Embedded Systems, Intro to Artificial Intelligence, Intro to Machine Learning

Experience

LogicMonitor – Software Engineer Intern   June 2019 – Aug 2019
- Designed a microservice to deliver product and feature information to customers
- Improved the data model to be more concise while still communicating key points
- Implemented an outward facing RESTful API to make HTTP requests to the MySQL database
- Refactored hundreds of lines of legacy code to provide a safer and more efficient API

Innovart Design Inc. – Unpaid Intern   July 2018 – Sept 2018
- Customized an interactive website for their new product, CarWink
- Collaborated with employer to develop marketing and user interface strategies for Innovart
- Revitalized the page dynamics with Bootstrap and responsive web design

Private Tutor   Sept 2017 – Present
- Tutor students in prealgebra, algebra, geometry, and trigonometry
- Sit down with students to discuss problems and guide them to solutions

Projects

Data Structures Implementation Project (C++)   Dec 2018
- Implemented data structures to efficiently store the contents of large files
- Worked with other students to visualize AVL balancing and Hash table growth

Othello AI Project (C++)   Nov 2018
- Developed an AI that placed in the top 30% when matched against rest of the class
- Constructed an evaluation function that assigns weighted scores to all possible moves
- Implemented a heuristic search function using minimax algorithm to find the best potential move
- Added alpha beta pruning to allow for deeper searches without exceeding long run times

Maze AI Project (C++)   Nov 2018
- Created a maze generator and maze solver that designed and solved a maze of arbitrary size
- Built the maze by using depth-first traversal in recursive calls and pseudorandom generators
- Solved the maze by using depth-first traversal and recursive backtracking

MapQuest Open Data API Project (Python)   Nov 2017
- Established a GPS system that displayed personalized travel instructions
- Developed skills in modularization of classes and duck typing
- Learned HTTP standards and parsing information

Skills

Technical Languages: Python, C/C++, HTML/CSS, Java, R, MySQL
Technologies: Git, Jira/Confluence, Docker, Gradle, Mockito/PowerMockito
Languages: Fluent in English, Working proficient in Mandarin