Michael Yuen

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Education

August 2019-May 2021

University of Southern California

Los Angeles, CA

- Masters of Science in Computer Science; GPA: 4.00, MS Honors
- Relevant Coursework: databases, algorithms, game machine learning, mobile games, game network architectures, web tech

August 2016-June 2019

University of California, Irvine

Irvine, CA

- Bachelors of Science in Computer Science specializing in Intelligence Systems; GPA: 3.79, Cum Laude
- Relevant Coursework: databases, operating systems, artificial intelligence, data structures, analysis of algorithms, machine learning, game development, information retrieval, graph theory, computer vision

Work Experience

August 2019-May 2021

Teaching Experience

Los Angeles, CA

- Course Producer for Software Engineering, Grader for Graduate Database Systems, Grader for Intro to Programming Systems, Grader for Mobile Games, Lead Course Producer for Artificial Intelligence (Spring 2020), and Teaching Assistant for Artificial Intelligence (Spring 2021)
- Graded coursework, helped organize teaching staff, hosted office hours both online and offline, and answered debugging and theoretical questions on Piazza (online forum of class)
- Built a Machine Learning homework that is autograded for Artificial Intelligence that required students to build a K-Nearest Neighbors classifier from scratch, use sklearn to build ensembles, and use Pytorch to build convolutional neural networks

Projects

January 2021-May 2021

Inside Job

- Used the Unity Engine and the Photon network architecture to create a simple social deduction game
- Built a lobby system using Photon's Room properties, allowing players to create and join games hosted in different locations
- Built a better dead reckoning system for synchronization of game objects for moving, shooting, and interacting with objects
- Built a proximity text and voice chat from Photon's Chat and Voice API

January 2021-May 2021

Movie Details: Android App

- Used Android Studio with Java for frontend of a mobile application, allowing users to use a responsive Android application to access recent and featured movies and TV shows through carousels, find details and social media of movies, access cast and review details, use a search feature to find the info needed, and add movies and TV shows to a watchlist
- Used RESTful APIs through NodeJS to make callbacks to The Movie Database API as a backend
- Hosted the backend via Google Cloud Platform in order to host dynamic content and have the app access the backend

January 2020-May 2020

Dungeon Smiths

- Used the Unity Engine to create a unique maze crawler game with a group of 6 people
- Game has an exterior 3D maze that forces the player into 2D minigames upon reaching an enemy
- Developed multiple minigames including two final bosses, simple cutscenes, and dialogue functionality.
- Utilized Agile development through Sprints and iterative development in Github

April 2019-June 2019

Object Reconstruction

- Took many images of a dragon model using a set of scanners and a projector
- Used Python's OpenCV and Numpy libraries to generate a mesh from the images taken from scanners
- Used camera calibration to determine camera parameters, generated a baseline mesh from triangulation
- Finalized a mesh from MeshLab using alignment and poisson surface reconstruction

October 2018-December 2018

Kaggle Competition

- Used sklearn and keras libraries to build K-Nearest Neighbors, Random Forests, and Neural Networks to predict rainfall
- Worked in a group of 3 people through Kaggle's kernels to build a series of python notebooks
- Reached the top 10% of the private leaderboard

Skills

- Languages: Python (proficient), C++ (proficient), Java (familiar), SQL (familiar), HTML (familiar), CSS (familiar), Javascript (familiar), C# (familiar)
- Systems and Software: Windows, Linux, Oracle virtual machine, Visual Studio, Eclipse, Jupyter Notebooks, Numpy/Matplotlib, Unity Engine, Git, Android Studio, NodeJS, Flask, Azure, GCP, MongoDB, Photon