Michael Yuen

Myyuen@uci.edu
https://luxebo.github.io

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

July 2021-Present	**Microscape Full Stack/Unity Developer**	Los Angeles, CA

- Working in a startup in biotech focused on a product that allows users to add medical data and render the data as a 3D image
- Implemented multiplayer functionality with rooms and multi-user interaction for the application with Photon
- Adjusted the volume renderer algorithm and worked on different shader, cropping, filtering adjustments to the image
- Adjusted sliders to work on the VR medium, including annotations using a brush tool
- Used AWS Lambda to save and load filtering/cropping/shader settings that are set for a specific image
- Added a multi asset feature, allowing for users to load in multiple 3D image assets and change their transforms, filters, etc

April 2022-Present	**Prism Unity Developer**	Los Angeles, CA

- Working in a startup in biotech focused on a product using IoT to interact with a Unity game application
- Prototyped games including a new minigame involving shooting a slingshot with breathing rate of a Polar waistband
- Worked on a breathing game that used a chromium web browser to watch Netflix, Spotify, etc while gathering medical data
- Helped add small features such as UI popups and UI functionality to a flappy bird game

August 2019-May 2021	**Teaching Experience**	Los Angeles, CA

- Grader for Software Engineering, Grader for Graduate Database Systems, Grader for Intro to Programming Systems, Grader for Mobile Games, Lead TA for Artificial Intelligence (Spring 2020), and TA 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 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

Skills

- **Languages:** Proficient: Python, C++, C#; Familiar: Java, SQL, HTML, CSS, Javascript
- **Systems and Software:** Windows, Linux, Oracle virtual machine, Visual Studio, Eclipse, Jupyter Notebooks, Numpy stack, Unity Engine, Git, Android Studio, NodeJS, Flask, Azure, GCP, AWS Lambda, MongoDB, Photon, Oculus VR