

# Michael Yuen

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

## Education

- 
- |   |  |                 |
|---|--|-----------------|
| August 2019-May 2021  | <b>University of Southern California</b> | Los Angeles, CA |
| <ul style="list-style-type: none"><li>• Masters of Science in Computer Science; GPA: 4.00, MS Honors</li><li>• Relevant Coursework: databases, algorithms, game machine learning, mobile games, game network architectures, web tech</li></ul>  |  |                 |
| August 2016-June 2019   | <b>University of California, Irvine</b>  | Irvine, CA      |
| <ul style="list-style-type: none"><li>• Bachelors of Science in Computer Science specializing in Intelligence Systems; GPA: 3.79, Cum Laude</li><li>• Relevant Coursework: databases, operating systems, artificial intelligence, data structures, analysis of algorithms, machine learning, game development, information retrieval, graph theory, computer vision</li></ul> |  |                 |

## Work Experience

- 
- |  |  |                 |
|--|--|-----------------|
| July 2021-Present  | <b>Microscope Full Stack Developer</b> | Los Angeles, CA |
| <ul style="list-style-type: none"><li>• 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</li><li>• Implemented multiplayer functionality with rooms and multi-user interaction for the application with Photon</li><li>• Added bioformats api which allows different file formats to be translated to pngs, translating Java to C# code through dlls</li><li>• Adjusted the volume renderer algorithm and worked on different shader, cropping, filtering adjustments to the image</li><li>• Adjusted sliders to work on the VR medium, including annotations using a brush tool</li><li>• Used AWS Lambda to save and load filtering/cropping/shader settings that are set for a specific image</li></ul>             |  |                 |
| August 2019-May 2021   | <b>Teaching Experience</b>             | Los Angeles, CA |
| <ul style="list-style-type: none"><li>• 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)</li><li>• 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)</li><li>• 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</li></ul> |  |                 |

## Projects

- 
- |  |                                   |
|--|-----------------------------------|
| January 2021-May 2021  | <b>Inside Job</b>                 |
| <ul style="list-style-type: none"><li>• Used the Unity Engine and the Photon network architecture to create a simple social deduction game</li><li>• Built a lobby system using Photon's Room properties, allowing players to create and join games hosted in different locations</li><li>• Built a better dead reckoning system for synchronization of game objects for moving, shooting, and interacting with objects</li><li>• Built a proximity text and voice chat from Photon's Chat and Voice API</li></ul> |                                   |
| January 2021-May 2021  | <b>Movie Details: Android App</b> |
| <ul style="list-style-type: none"><li>• Used Android Studio with Java for frontend of a mobile application focused on searching and viewing movie details</li><li>• Used RESTful APIs through NodeJS to make callbacks to The Movie Database API as a backend</li><li>• Hosted the backend via Google Cloud Platform in order to host dynamic content and have the app access the backend</li></ul>  |                                   |
| January 2020-May 2020  | <b>Dungeon Smiths</b>             |
| <ul style="list-style-type: none"><li>• Used the Unity Engine to create a unique maze crawler game with a group of 6 people</li><li>• Game has an exterior 3D maze that forces the player into 2D minigames upon reaching an enemy</li><li>• Developed multiple minigames including two final bosses, simple cutscenes, and dialogue functionality.</li><li>• Utilized Agile development through Sprints and iterative development in Github</li></ul>   |                                   |
| April 2019-June 2019   | <b>Object Reconstruction</b>      |
| <ul style="list-style-type: none"><li>• Took many images of a dragon model using a set of scanners and a projector</li><li>• Used Python's OpenCV and Numpy libraries to generate a mesh from the images taken from scanners</li><li>• Used camera calibration to determine camera parameters, generated a baseline mesh from triangulation</li><li>• Finalized a mesh from MeshLab using alignment and poisson surface reconstruction</li></ul>   |                                   |

## Skills

- 
- **Languages:** Proficient: Python, C++; Familiar: Java, SQL, HTML, CSS, Javascript, C#
  - **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