# 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
- Grader for software engineering, graduate databases, programming systems, mobile games, Lead Grader and TA for AI

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

December 2022-September 2023 **Game of Silks Unity Developer** Los Angeles, CA

- Working in a metaverse/NFT/crypto startup that wants to use NFTs of real horses to let users gamble in real horse races
- Built a dialogue system, created scene transitions, saved scenes to asset bundles on AWS S3, and optimized for webGL
- Worked with an art team designing materials, lighting, shaders, models, animations, rigging for Unity
- Ingested 10000 real horses from the jockey club API through using AWS lambda functions and inserting into a SQL table
- Created an ASP.NET API to allow users to buy land NFTs and access the SQL database through a Three.js frontend
- Used Moralis to allow users to mint NFTs using a smart contract, connecting to their Metamask wallet

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

- Working in a startup (part time) 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

September 2022-December 2022 **Norvoc Bioscience Software Developer** Irvine, CA

- Working in a biotech company. Project is focused on data visualization and making the data interactive from ML models
- Built this project using React, Node.js, Mongodb, Synology servers, and Three.js for visualization
- Used Three.js to create generalized cylinders, along with using open GLSL to write shader code for a gradient

July 2021-August 2022 **Microscape Full Stack/Unity Developer** Los Angeles, CA

- Worked in a startup in biotech focused on a Unity product that allows users to add and render medical 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 VR, 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

## 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

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#; Familiar: Java, SQL, HTML, CSS, Javascript, C++
- **Systems and Software:** Windows, Linux, Oracle VM, Visual Studio, Eclipse, Jupyter Notebooks, Numpy stack, Unity, Git, Android Studio, NodeJS, Flask, Azure, GCP, MongoDB, Photon, Oculus VR, React, Three.js, Moralis, ASP.NET
- **AWS:** Lambda, Cloudwatch, S3, Dynamodb, SQS, SNS, Eventbridge, Cloudfront, Parameter Store