Jeffrey Shen

859-457-9705 | jeffreyshen859@gmail.com | www.linkedin.com/in/jeffrey-shen-24a0631b9/ | https://github.com/jshen12

Education

University of California, Los Angeles (UCLA) Expected June 2024
B.S. in Computer Science *GPA: 3.73/4.0*
Relevant Coursework: Computer Organization, Software Construction, Operating Systems, Algorithms and Complexity, Data Science, Computer Graphics, Computer Architecture

Experience

Undergraduate Research Assistant May 2022 – Present
UCLA Department of Electrical and Computer Engineering *Los Angeles, CA*

- Worked in a team of two to redesign and develop the lab's full-stack conspiracy visualization website
- Wrote REST API endpoints using Express and MySQL to retrieve social media corpus data from the lab's in-house Apache linux servers
- Designed and implemented a dashboard using Chart.js that displays daily analytics of data collected by the lab
- Implemented live feed of current news articles correlated to the lab's web scrapped phrases

Capstone Research Project January 2018 – May 2020
University of Kentucky Department of Computer Science *Lexington, KY*

- Explored and researched techniques to improve performance of Generative Adversarial Networks (GANs)
- Generated a training dataset of over 1500+ image samples by scrapping the web with Python and Selenium
- Designed and implemented various neural network models trained to generate photorealistic images in Keras
- Achieved improvements over vanilla GAN model's training speed and accuracy by utilizing transfer learning

Projects

Bruin Bytes | *React.js, Node.js, Express, MongoDB* October 2021 – December 2021

- Led a team of 4 to develop a full-stack React app that tracks the real-time status of UCLA dining halls
- Built RESTful API to retrieve and submit user and dining hall info from MongoDB cloud servers
- Designed and implemented front-end UI in React using Tailwind CSS and React Router

CubePlace | *C/C++, OpenGL* August 2022 – Present

- A "Minecraft-esque" voxel game engine written entirely in C/C++, using OpenGL for graphics rendering
- Features procedural terrain generation, advanced lighting, over 15 different cube types with support to add more, and mechanics for cube placing and breaking
- Utilized advanced memory management and multithreading to run at 100+ fps on a Lenovo Legion 5 laptop

SpiritShard | *C#, Unity2D* January 2022 – April 2022

- Core team member of *SpiritShard*, a 2D adventure game written in the Unity2D game engine and C#
- Programmed game mechanic that performs real-time symbol recognition on the player's mouse gestures
- Designed and implemented game UI features, dynamic SFX, and player data saving in XML files

marketBot | *Python* May 2021

- Created a Python script to automate the buying and selling of cryptocurrencies based on technical indicators
- Retrieves and analyzes current Bitcoin technical data and sends orders through the Binance API
- Deployed code on AWS Lambda cloud service to run on a schedule every 10 minutes

Skills

Languages: Python, C/C++, Java, JavaScript, Typescript, HTML/CSS
Tools/Technologies: React, Node.js, Express, MongoDB, MySQL, Git, Linux, Bash, OpenGL, Unity3D