Yi Lyu

3640 S Sepulveda Blvd, Los Angeles, CA 90034
✉ marcolyu@g.ucla.edu | +1 (530)7609719 | yi-lyu-3849b2169 | marcoylyu.github.io

EDUCATION

University of Illinois Urbana-Champaign, Champaign, Illinois
Master of Computer Science — Aug. 2021 - Dec. 2022
GPA: N/A

University of California, Los Angeles, Los Angeles, CA
B.S. in Mathematics of Computation — Graduating in June. 2021
GPA: 3.94 / 4.00

SKILLS & OTHERS

Programming: C++, Python, Javascript, SQL, AWS, Hadoop/Spark, OpenGL, PyTorch, OpenCV, Linux
Web Development: Frontend Development, Node.js, React, Flask, Nginx, PostgreSQL
Computer Science: Operating System, Computer Graphics, Computer Vision, Algorithms, Database
Mathematics: Machine Learning, Linear Algebra, Numerical Analysis, Probability, Graph Theory

EXPERIENCES

Nokia, Hangzhou, China
SW Engineer Intern — Jul. 2019 - Sep. 2019
- Created a set of log analysis toolchains in a distributed environment to boost development efficiency.
- Developed a **Python** tool that helps analyze tests in a **Continuous Integration** environment.
- Parsed and analyzed **C++** compiler logs and Gerrit log files with **ELK stack**.
- Facilitated the test analysis for more than 70 software engineers.

Back-Bandaid,
Web Developer — Mar. 2019 - Jun. 2019
- Developed Back-Bandaid, a posture correction product, in a quarter-long Product Design course (ENG 002).
- Designed and built a web application with **Node.js** that supports account creation and order processing.
- Pitched in class for potential investment and ranked Top 3 across all sections.

PIC 40A, UCLA
Reader/Grader — Sep. 2020 - Dec. 2020
- Read and graded students' homework and quizzes in Web Application (PIC 40A).
- Implemented an automatic grading tool for web application homework with **Selenium** and **Pytest**.
- Reduced the estimated grading time for PIC 40A from 35 to 24 hours.

PROJECTS

Image Stitching,
Create a panorama based on a video or several images — Jan. 2021 - Mar. 2021
- Created a web application with **Flask** that combine images with overlapping areas.
- Implemented the functionality with **OpenCV**.
- Used algorithms such as SIFT, RANSAC, and image stitching given homography.

When Drones Attack, UCLA (CS 174A)
a TPS game based on **WebGL** — Jan. 2021 - Mar. 2021
- Created a TPS game where users need to protect their houses from the drones with energy bolts.
- Implemented features including collision detection, model gluing, and mouse picking from stratch.

Scytale, UCLA
A Python library for cryptography — Jan. 2020 - Jun. 2020
- Implemented a variety of algorithms and cryptographic systems and published it on PyPI.

BearMap, UC Berkeley (COM SCI 61B)
A mapping service project similar to Google Maps — Jun. 2018 - Aug. 2018
- Built a Java Web Mapping application that performs routing and graph traversal.