

Yi Lyu

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EDUCATION

University of Illinois Urbana-Champaign

Master of Computer Science

Aug. 2021 - Dec. 2022

GPA: N/A

University of California, Los Angeles

B.S. in Mathematics of Computation

Graduated in June. 2021

Honors: summa cum laude (3.95 / 4.0)

EXPERIENCES

EMLab Solutions, Inc – Web Development Intern

Python, C++, Flask, WebGL, MongoDB, AWS

Sep. 2021 - Dec. 2021

- Building application interfaces for the existing scientific computing tools.
- Implementing new features for microscopy simulation tools for materials engineering research communities.

PIC 40A (UCLA) – Reader

Python, Bash, Selenium, Pytest

Sep. 2020 - Dec. 2020

- Implemented an automatic grading tool for students' homework and quizzes in a Web Application class.
- Reduced the estimated grading time for the class from 35 to 24 hours.

Nokia – Software Engineering Intern

Python, C++, ELK stack, Vega, Git, Jenkins, GoogleTest

Jul. 2019 - Sep. 2019

- Developed an automated log analysis platform to boost development efficiency.
 - Constructed a data pipeline to parse and analyze TTCN3 log and SCT log files in a CI/CD environment.
 - Built an interface for engineers to query the processed data and visualize them with Vega.
 - Analyzed the test performance and coverage distribution, and reported findings in presentation.
 - Facilitated the test analysis for more than 70 software engineers.
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PROJECTS

Pokedex

Python, Javascript, Django, React

Apr. 2021 - May. 2021

- Created a web-based pokemon dictionary to search for pokemons.
- Functionalities include registration, pokemon search, and a like/favorite system.

Image Stitching

Python, Pandas, OpenCV

Jan. 2021 - Mar. 2021

- An application that creates a panorama based on images with overlapping areas.
- Used algorithms such as SIFT, RANSAC, and image stitching given homography.

When Drones Attack (CS 174A)

Javascript, WebGL

Jan. 2021 - Mar. 2021

- Created a TPS game where users need to protect their houses from the drones with energy bolts.
- Implemented mouse picking and model gluing through coordinate transformations and orthogonal projections.
- Simulated drones' movement based on two-dimensional random walk with boundaries.

Back-Bандаid – Web Developer

Python, Javascript, Django, Frontend Development, SQLite

Mar. 2019 - Jun. 2019

- Developed Back-Bандаid, a posture correction product, in a quarter-long Product Design course (ENG 002).
 - Built a web application that supports account creation and order processing.
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SKILLS & COURSEWORK

Programming: Python, C++, Javascript, SQL, Azure, Hadoop/Spark, WebGL, PyTorch, OpenCV

Web Development: Frontend Development, Node.js, React, Django, MySQL, MongoDB

Computer Science: Data Structures, Operating System, Algorithms, Database, Distributed System

Mathematics: Machine Learning, Computer Vision, Linear Algebra, Numerical Analysis, Graph Theory