

YI ZHOU

+1 (401)-999-4576 | yzhou20@g.ucla.edu | 1561 S Barrington Ave # 102, Los Angeles, CA

EDUCATION

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA), Los Angeles, CA

Master of Science

Expected June 2022

- Major: Electrical and Computer Engineering.
- GPA 3.76.
- Relevant course work: Data Structure, Computer Networking, Computational Imaging, Image Processing, Deep Learning, Reinforcement Learning.

SYRACUSE UNIVERSITY, Syracuse, NY

Bachelor of Science

May 2020

- Major: Electrical and Computer Engineering.
- GPA 3.70.

SKILLS

- Proficient in Python, MATLAB; working knowledge in Java, HTML/CSS/JS.
- Experience with React, Flask, Django, REST API, PostgreSQL, git, Docker, Nginx.
- Knowledge in Computer Science subjects such as Networking, Database, Deep Learning, Reinforcement Learning.
- Other skills: Image Processing, Computer Vision, Communication System, Power System.

PROJECTS

COVID 19 VACCINE DISTRIBUTOR

Los Angeles, CA

Machine Learning Engineer

April 2021 - June 2021

- Developed a COVID 19 vaccine distribution policy based on reinforcement learning; aimed for optimizing existing vaccine distribution policies measured by number of decreases in death.
- Built and calibrated learning agents with SEIR using established metrics for pandemic; designed MAB reward functions using metrics in SEIR model; modeled actions with number of vaccine distribution destinations; simulated vaccine distribution over the first ten days of the pandemic per available vaccines.
- Compared and evaluated performance to hand craft policies; reduced 10 percent potential death against naive resources allocation methods under low infection rate.

REAL-TIME HEART RATE ESTIMATION

Los Angeles, CA

Machine Learning Engineer

October 2020 - December 2020

- Performed computer vision techniques to estimate a person's heart rate in a preset background; compared performance to ECG datasets at per second interval.
- Developed rPPG pipeline, including face detection, signal aggregation and extraction, denoising etc; applied deep learning methods such as rCNN and KLT; improved model efficiency a to one estimation per five seconds.
- Valued designed pipelines and prepared analysis report on algorithm performance against two other state of art methods; achieved over 95% accuracy compared to ground truth.

PROFESSIONAL EXPERIENCE

MORUST INC

Los Angeles, CA

Full Stack Engineer

May 2021 - Present

- Deploy a full stack web application using web frameworks; add payment systems and decrease operation cost by 20%.
- Design responsive web pages using CSS and React; cooperate with UI designer to create reusable components.
- Wrote Restful APIs with Django; integrated a payment architecture for international payments; build models to log payments with PostgreSQL.
- Implement load balancing and reverse proxy with Nginx, enabling two way communication between frontend and backend; containerized using Docker.

LIGHTHOUSE EDU INC

Los Angeles, CA

Backend Engineer Intern

May 2021 - May 2021

- Collaborated with startup team to setup a B2C website; managed and deployed sites using G Cloud service.
- Co-developed an RL based tutor recommendation system; collaborated with one data analyst to provide customized educational services as a core feature for end users.
- Implemented IT support for the management team; led to 20% improvement in communication and efficiency.

DEPARTMENT OF ELECTRICAL ENGINEERING, SYRACUSE UNIVERSITY

Syracuse, NY

Undergraduate Research Intern

May 2018 - December 2019

- Studied on an Illinois community solar project and challenges of expansion planning; classified regions with similar features using past 10 years of solar irradiance data.

- Proposed a unit commitment model using machine learning to increase renewable utilization and reduce renewable energy curtailment; presented study at open house in front of 20+ audience.

PUBLICATIONS

W. P. Philippe, A. Bangura, Y. Zhou, and S. Eftekharnejad, Supplementing Spinning Reserves with Demand Response under Wind Generation Uncertainty, IEEE ISGT, 2020.