

ZIYU LIU

Mobile: 518-776-9920 ◇ Email: zl769@cornell.edu

<https://github.com/dlydb>

EDUCATION

Cornell Tech at Cornell University

Aug. 2019 - May. 2020

Master of Engineering in Computer Science

Related Courses: Applied Machine Learning, Interactive Device, Virtual and Augmented Reality

Rensselaer Polytechnic Institute

Sep. 2015 - May. 2019

Bachelor of Science in Electrical Engineering and Computer Engineering

GPA: 3.75 / 4.00

Dean Honor List, Undergraduate Teaching Assistant in Embedded Control

Performance Excellence Award for Best Consumer Product Design

Related Courses: Computer Vision, Introduction to Artificial Intelligence, Database System

EXPERIENCE

Undergraduate Researcher, Smart Conference Room, Troy, NY

Jan. 2018 - May. 2019

- Built different simulated rooms with **Unity** and tested simulated sensors under **VR** environment
- Developed a maximum likelihood estimation-based algorithm for the **privacy-preserving tracking** and **pose estimation** with **89%** accuracy and reduced **24%** energy usage
- Analyzed data to reconstruct the room and people movement with **Python** and **OpenCV**
- Worked with team on sensors communication and network on real room

Undergraduate Research Assistant, CISL, IBM, Troy, NY

Mar. 2017 - Aug. 2017

- Embedded the **Analogy Generation Engine** inside the Mandarin project
- Scraped data from **DBpedia** with **REST API** in knowledge-explore application using **JavaScript**
- Employed knowledge-explore application and improved accuracy by **10%** of the analogy engines with new comparison model

PROJECTS

Arup, Product Studio at Cornell Tech

Aug. 2019 - Present

- Develop machine learning model to predict customized retrofit recommendation for house owner
- Visualize energy data for buildings with Google Maps API with same type of buildings based on location

VR Immersive Music

Sep. 2019 - Present

- Develop a **VR** application that allows users to populate a virtual environment with interactive objects
- Process audio source using signal processing and align music with virtual effect

Albany Guardian Society, Medicine Management

Sep. 2018 - Dec. 2018

- Developed **Django** application on **Raspberry Pi** with local server
- Created a user-friendly interface especially for seniors with bold text and an easy boot-up system
- Integrated a customized calendar UI for different groups of customers
- Developed **database** to save user login credential and medication information for care provider

Pac-Man Project

Jan. 2018 - May. 2018

- Implemented **model-free** and **model-based reinforcement learning** algorithm to Pac-man
- Used different search algorithms to navigate Pac-man, which beats **91%** human players

SKILLS

Python, C/C++, C, MATLAB, SQL, Unity, OpenCV, Django, Arduino, Raspberry Pi, Sklearn, JavaScript, Pandas, Git, CAD, CSS, HTML, Node