

Charlie Du

(408)-420-0244 | charlie7@illinois.edu | [cyhd.github.io](https://github.com/cyhd)

EDUCATION

UIUC Grainger School of Engineering

Aug 2021 - Present

B.S. in Computer Science

Carbondale Community High School (GPA: 4.0/4.0)

Aug 2017 - June 2021

EXPERIENCE

iJet Lab - Brunswick Corporation

May 2022 - Present

Computer Graphics Software Developer Intern

- Managed and provided technical guidance for the team working on CES 2024
- Developed training resources for new team members
- Developed interactive simulator to showcase autonomous boating at CES 2023
 - Featured in AutoWeek, Boating Magazine, and Yahoo Finance
 - Implemented realistic physics, designed UI, and programmed events to communicate the experience of autonomously docking (Unreal Engine, C++)
 - Distributed rendering between multiple computers, and calibrated projectors to create a video wall (Unreal nDisplay)
 - Wrote programs to integrate physical boat hardware with simulator (Python)
 - Designed simulation system and quick-restart procedures for CES exhibit
 - Attended CES as exhibitor: set up exhibit, presented simulator to attendees.

Southern Illinois University

Jun 2019 - Aug 2021

Student researcher

- Developed a computer vision model to detect signs of Sudden Infant Death Syndrome (Python, Tensorflow, Keras)
- Deployed model on a Nvidia Jetson Nano

PROMYS Summer Program

Jun 2020 - Aug 2020

Student researcher

- Created a Python model for determining and reducing racial segregation between school districts (Python)
- Published results: [How we used math to explore racial segregation in Pennsylvania public school districting - Storybench](#)

CLUBS

Illini Electric Vehicle Concept - Computer Vision Team

Aug 2021 - Present

UIUC ACM GNU/Linux SIG

Aug 2022 - Present

SKILLS

Proficient in Python (6+ years), C++ (5+ years), C# (4+ years), Java (2+ years), Javascript, Unreal Engine, Unity Engine, TensorFlow, Keras, Qiskit, Docker, Svelte

ACHEIVEMENTS AND RECOGNITION

UIUC Research Park Most Outstanding Undergraduate Student Intern

COURSES TAKEN

Data Structures and Algorithms

Computer Architecture

Deep Learning for Computer Vision

Algorithms & Models of Computation

Computer Systems Engineering

Probability & Statistics