Charlie Du
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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

COURSES TAKEN

Data Structures and Algorithms
Deep Learning for Computer Vision
Computer Systems Engineering
Computer Architecture
Algorithms & Models of Computation
Probability & Statistics