Jerry Liu

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Work Experience

Software Engineering Intern

Bethesda, MD

Leidos

May 2021 – Aug. 2021

Worked on the All-World Environment Simulation (AWESIM) project, a high-fidelity physics-based simulation of the generation and propagation of acoustic signals in the ocean for sonar trainers in the U.S. Navy. Developed and debugged code in C++, Python, and React.js. Followed the agile methodology with a Jira Kanban Board and used the Conan C++ package manager, RESTful web services, Jenkins, and Kubernetes.

Teaching Assistant for CS 3330

Charlottesville, VA

University of Virginia

Feb. 2021 - Present

Assisting students with understanding computer architecture concepts and the x86 assembly language. Hosting weekly office hours, cohosting lab sections, and answering questions on Piazza.

Skills

- **Programming Languages:** Python, Java, C++, C, JavaScript, HTML, CSS, SQL, C#, Bash, MATLAB
- Libraries: React.js, NumPy, Matplotlib, Scikit Learn, TensorFlow, Keras, PyTorch, OpenCV, Pandas
- Tools: Visual Studio Code, Eclipse, Vim, JUnit Testing, GitHub, VirtualBox, Conan C++ Package Manager, Docker, Kubernetes, Jenkins, Jira, Django, Heroku, Jupyter Notebook, Wireshark
- **Operating Systems:** Linux, Windows

Education

University of Virginia

Charlottesville, VA

B.S. Computer Science, GPA: 3.99/4.00

Aug. 2019 - May 2023

Thomas Jefferson High School for Science and Technology

Alexandria, VA

Advanced Studies Diploma, GPA: 4.53

Sep. 2015 - Jun. 2019

Relevant Coursework: Operating Systems, Databases, Mobile Applications, Advanced Software Development, Computer Networks, Artificial Intelligence, Computer Vision, Computer Architecture, Machine Learning, Algorithms, Data Structures, Discrete Math, Linear Algebra, Probability, Statistics

Research

Investigating Data Poisoning and PGDAttack during Adversarial Training Charlottesville, VA *Jun. 2020 – Sep. 2020 University of Virginia* Analyzed different combinations of data poisoning and PGDAttack in adversarial training of a linear SVM to investigate if the two adversarial methods amplify or hinder each other.

Chess Game Tracking via Computer Vision & Deep Learning Alexandria, VA Thomas Jefferson High School for Science and Technology Aug. 2018 - May 2019 Developed project on chess game tracking through computer vision and deep learning using a custom dataset and a Convolutional Neural Network. Used the Keras, TensorFlow, and OpenCV Python libraries.