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, debugged, and tested code in C++, Python, and Typescript. Used a Jira Kanban Board, the Conan C++ package manager, React.js, and RESTful web services.

* **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.

* **Undergraduate Researcher Charlottesville, VA**

*University of Virginia Jun. 2020 – Sep. 2020*

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.

**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, 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, Algorithms, Data Structures, Databases, Computer Networks, Computer Architecture, Machine Learning, Artificial Intelligence, Computer Vision, Discrete Math, Linear Algebra, Probability, Statistics

**Projects**

* **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.