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, an algorithm that creates 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. Wrote 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*
  Assisted students with understanding computer architecture concepts and the x86 assembly language. Hosted weekly office hours, cohosted lab sections, and answered 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**
  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.
- **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.