Jerry Liu

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Education

University of Virginia, Charlottesville, VA **08/2019 – 05/2022**

- **Major:** Computer Science (B.S.)
- **Cumulative GPA:** 3.99 **Major GPA:** 3.98 (Dean's List)
- **Relevant Coursework:** Computer Networks, Artificial Intelligence, Introduction to Computer Vision, Computer Architecture, Machine Learning, Algorithms, Theory of Computation, Computer Game Design, Program and Data Representation, Digital Logic Design, Discrete Math, Software Development Methods, Ordinary Differential Equations, Probability Theory, Linear Algebra, Mathematics of Information
- **Extracurricular Activities:** Computer and Network Security Club, Machine Learning Club, ICPC, Google Developer Student Club, Student Game Designers, Table Tennis Club

Thomas Jefferson High School for Science and Technology, Alexandria, VA **08/2015 – 05/2019**

- **GPA:** 4.53 (Advanced Studies Diploma)
- **Relevant Coursework:** AP Computer Science A plus Data Structures, AP Calculus BC, AP Physics C, Multivariable Calculus, Linear Algebra, Artificial Intelligence 1 & 2, Parallel Computing 1 & 2, Computer Vision 1 & 2, Computer Systems Research Lab
- **Awards and Honors:** National Merit Scholar, National AP Scholar
- **Extracurricular Activities:** Computer Team, Machine Learning Club, Computer Security Club, Cross Country

Work Experience/Research

- **Software Engineering Intern** **05/2021-Present**
  Leidos
  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 Jira and used the Conan C++ package manager, RESTful web services, Jenkins, and Kubernetes.
- **Teaching Assistant for CS 3330** **02/2021 – Present**
  School of Engineering and Applied Science, University of Virginia
  Assisted students with understanding computer architecture concepts and the MIPS assembly language. Hosted weekly office hours, cohosted lab sections, and answered questions on Piazza.
- **An Investigation into using Data Poisoning and PGDAttack during Adversarial Training** **06/2020 – 09/2020**
  UVA Security Research Group, 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. This project introduced me to cybersecurity in machine learning and how to operate in a research group.

Projects

- (Sep 2020 – Dec 2020) – Group project for Machine Learning class about predicting car crash severity using traffic data

Skills

- **Programming Languages:** Python, Java, C++, C, JavaScript, HTML, CSS, SQL, C#, Bash, MATLAB, x86 Assembly
- **Tools:** React.js, Visual Studio Code, Eclipse, Vim, JUnit Testing, GitHub, Virtual Box, Conan C++ Package Manager, Docker, Kubernetes, Jenkins, Jira, Django, Jupyter Notebook, Wireshark, NumPy, Matplotlib, Scikit Learn, TensorFlow, Keras, PyTorch, OpenCV, Pandas, Seaborn
- **Operating Systems:** Linux, Windows

Certificates

- Coursera: Structuring Machine Learning Projects – 08/19/20
- Coursera: Improving Deep Neural Networks – 08/16/20
- Coursera: Neural Networks and Deep Learning – 08/09/20
- Coursera: R Programming – 07/31/20
- Coursera: The Data Scientist's Toolbox – 07/21/20