Steven Qian

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Education

University of Virginia

B.S. Computer Science   Aug. 2022 – May 2026

Related coursework: Data Structures, Algorithms, Computer Systems, Applied Circuits, Linear Algebra, Probability, Multivariable Calculus, Ordinary Differential Equations, Discrete Math

Skills

Programming: Python, Java, C, Assembly, MATLAB
Machine Learning & AI: TensorFlow, PyTorch, Keras, Pandas, NumPy, Scikit-learn, Computer Vision
Cloud & DevOps: AWS, Docker, CI/CD (GitHub Actions)
Database: MySQL, PostgreSQL, Databricks, Oracle,
Big Data: Hadoop, Spark
Operating System: Linux, Unix, Windows
Cybersecurity: VPN, VLAN
Cloud Computing: AWS, GCP, Azure
Web Framework: Flask, Django

Work Experience

Headstarter AI

Fellowship   July 2024 – Sept. 2024

University of Virginia

Research Assistant   May 2024 – June 2024

· Analyzing the performance of Membership Inference Attacks and identifying factors contributing to their poor performance on large language models, such as dataset sizes, training iterations, and n-grams.
· Improving methods and adding new methods to evaluate result data using **Python**, contributing to the understanding of membership inference and its implications for privacy in machine learning.
· Fixing bugs in the source code and maintaining the code to ensure compatibility of new packages and updates, addressing issues arising from version conflicts.
· Assist with writing the documentation of the research process, methodologies, and code to ensure clarity and reproducibility.

Cisco Networking Academy

Teaching Assistant   Sept. 2020 – June 2022

· Led workshops on AWS configuration and management, training over 30 students in cloud networking fundamentals.
· Designed and implemented scalable cloud-based networking solutions using **AWS** services (EC2, VPC, Lambda, ELB, S3) , enhanced network infrastructure for educational purposes and increasing lab setup efficiency by 40%
· Established a controlled environment for vulnerability testing and penetration testing, training students in ethical hacking techniques and cybersecurity best practices.

Project Experience

Code for Charlottesville

Data Pipeline Developer   July 2024 – Present

Canvas CoPilot (Won 1st place at University of Virginia Hackathon)

Machine Learning Engineer   March 2024

· Developed an AI-powered academic assistant using Canvas and OpenAI APIs, enhancing students' ability to manage and prioritize daily academic tasks.
· Coded web scraping scripts and built an ETL pipeline to improve data flow between Canvas and the database.
· Developing encryption for database for better personal data security, utilized AES for encrypting database and SSL/TLS for securing data in transit.