Emily Liu

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Work Experience

Software Engineering Intern
Leidos - Domex Technology Platform

Arlington, VA
May 2024 - August 2024

- Expanded D3P (Domex Data Discovery Platform) capabilities through Horizontal Pod Autoscaling (HPA) experiments for microservices in Kubernetes.
- Configured and deployed Apache Kafka clusters on Kubernetes, using the Confluent API for microservice message communication.
- Utilized Prometheus and Grafana for metric collection and visualization.

Systems Engineering Intern
Leidos - Defense Healthcare Management System Modernization

Vienna, VA
June 2022 - January 2024

- Automated database importing processes using Python scripts with the pyodbc module.
- Managed Access and SQLite database tables containing network connection and incident ticket information for the Defect Management Team.
- Developed internal tracking and escalation tools on Monday.com to streamline workflow.

Teaching Assistant for Intro to Programming
University of Virginia

Charlottesville, VA
February 2022 - Present

- Supports approximately 500 students per semester in mastering Intro to Programming (CS 1110) using Python by holding weekly office hours and labs.

Skills

- **Programming Languages:** Python, Java, C/C++, HTML/CSS/Javascript, SQL, x86-64 Assembly
- **Frameworks & Libraries:** NumPy, Pandas, Hibernate ORM, Django, JUnit, Selenium, Bootstrap, React/Gatsby
- **Tools:** Git, Kubernetes, Docker, Helm, Visual Studio Code, Eclipse, IntelliJ, PyCharm, Jupyter Notebook, Heroku
- **Operating Systems:** Linux/Unix, Windows

Education

University of Virginia, *Charlottesville, VA*
August 2021 - May 2025

- Bachelor of Arts in **Computer Science** & Studio Art, Echols Scholar
- Cumulative GPA: **3.990**, Computer Science GPA: **4.0**
- **Relevant Coursework:** Advanced Software Development, Software Development Essentials, Software Testing, Data Structures and Algorithms, Computer Architecture and Operating Systems, Artificial Intelligence, Discrete Math, Intro Data Science with Python, Linear Algebra

Briar Woods High School, *Ashburn, VA*
August 2017 - June 2021

- **Valedictorian**, Advanced Studies Diploma, GPA: 4.82

Projects

RoomFinder Web Application
Advanced Software Development - University of Virginia

September 2023 - December 2023

- Developed a room booking application for University of Virginia buildings using MVC design, Django, Google Maps API, Google OAuth API, Bootstrap, and Javascript. Hosted on Heroku with PostgreSQL database. Worked with a team in an **Agile** environment.