

# Emily Liu

vyj9jn@virginia.edu | (703) 870-4466 | <https://emily-liu.netlify.app/>

## Education

---

**University of Virginia, Charlottesville, VA**

*August 2021 - May 2025*

- Computer Science Bachelor of Arts & Studio Art Bachelor of Arts, 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

## 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, Gradle, Helm, Visual Studio Code, Eclipse, IntelliJ, PyCharm, Jupyter Notebook
- **Operating Systems:** Linux/Unix, Windows

## Work Experience

---

**Software Engineering Intern**

**Arlington, VA**

*Leidos - Domex Technology Platform*

*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**

**Vienna, VA**

*Leidos - Defense Healthcare Management System Modernization*

*June 2022 - January 2024*

- Automated database importing processes using Python scripts with the pyodbc module increasing efficiency by 119%.
- 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**

**Charlottesville, VA**

*University of Virginia*

*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.

## Projects

---

**RoomFinder Web Application**

*September 2023 - December 2023*

*Advanced Software Development - University of Virginia*

- 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 with the role of requirements manager.