






Carson Russo

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Education

Virginia Polytechnic Institute and State University

Blacksburg, Virginia

B.S. in Computer Science and B.S. in Applied Discrete Mathematics

Expected Graduation: May 2026

- **Concentrations:** Software Engineering and Machine Learning
- **GPA:** 3.48/4.00
- **Computer Science In-Major GPA:** 3.60/4.00
- **Related Coursework:** Algorithm Analysis, Cryptography, Data Structures & Algorithms, Operating Systems, Computer Organization, Combinatorics, Object-Oriented Programming

Experience

Northrop Grumman

Baltimore, Maryland

Software Engineer Intern | Part-time, Remote

Aug 2024 – Present

- Developing plugins for Cameo to automate diagram creation, implement error checks, and connect DTMS and MPLM systems.
- Optimizing queries to efficiently retrieve and manage parts data to improve processing time for large datasets.

Software Engineer Intern | Full-time

Jun 2024 – Aug 2024

- Utilized **Python** Libraries (Plotly, pandas) and implemented parallelization to optimize software, reducing runtime by **3500%**, significantly improving efficiency and productivity.
- Designed a user-friendly dashboard using **Plotly Dash** to display experimental data, enhancing data accessibility and visualization for over **70** end-users.
- Implemented a **Jenkins** pipeline to provide CI/CD, streamlining deployment and improving future development workflows.

Diary Study Web Platform

Blacksburg, Virginia

Undergraduate Research Assistant

Aug 2024 – Present

- Fine-tuning **Large Language Models** and utilizing **Machine Learning** techniques to analyze diary study entries, enhancing reflection and learning outcomes for students and instructors.
- Building interactive features for **Data Visualization** and intelligent template generation to support dynamic feedback and personalized learning experiences on the platform.
- Collaborating with a multidisciplinary team to explore design alternatives and deliver written and oral presentations.

Projects

AI Study Assistant

ReactJS | Spring Boot | PostgreSQL

Full Stack Web Application | studymaster.io

Jun 2024 – Aug 2024

- Developed an **AI-powered** study platform that creates personalized study guides and practice problems, currently used by students across over **10** universities to enhance studying with targeted learning materials.
- Designed the frontend using **ReactJS**, and implemented a backend system with **Spring Boot** to create a **RESTful API** that manages user accounts with JWT authentication and email verification.
- Utilized a **PostgreSQL** database and deployed the application on an **AWS EC2** instance, achieving a scalable infrastructure that supports efficient accessibility for users.

Stock Market Predictor

ReactJS | Python | Flask

Machine Learning Model

Aug 2024 – Present

- Developing a stock market prediction web application using a **ReactJS** frontend and **Flask** backend, implementing **Machine Learning** models with **scikit-learn**.

Skills

Languages: Python, Java, JavaScript, HTML/CSS, SQL, C

Developer Tools: AWS, Postman, Git, BitBucket, Jira, Jenkins, VMware

Libraries/Frameworks: Spring Boot, PostgreSQL, ReactJS, Bootstrap, NodeJS