

Brandon Rhodes

Electrical Engineering and Mathematics | Website: brandonr24.github.io
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Education

Virginia Polytechnic Institute and State University (Virginia Tech)

Undergraduate pursuing majors in Electrical Engineering and Mathematics, Class of 2028. GPA: 3.52

Thomas Jefferson High School for Science and Technology, Class of 2024

Technical Skills

- **Programming Languages (Applications):** Python (Pytorch Python Library/Numpy Python Library), Javascript/HTML/CSS, C++ (Matlab/Android Studio), C, Java
 - **Programs:** Visual Studio Code, Eclipse, Oracle, OpenCV, LTSpice, Fusion360, Matlab with Simulink
 - **Electronics:** Arduino, Raspberry Pi, Lidar, Analog Discovery
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Experience

Internship Student, Nightwing, Fairfax, VA May 2026 - Present

- Working with an Analog Discovery device to analyze various aspects of an RF chip
- Using Matlab/Simulink to model and simulate software defined radio

Mathematics Learning Assistant, Virginia Tech, Blacksburg, VA Sep 2025 - Present

- Working to help facilitate weekly mathematics lessons under a Professor's instructions
- Learning to adjust teaching strategies to accommodate varied student learning preferences

Front-End Associate, Giant Foods, Chantilly, VA Jun - Sep 2025

- Coordinated daily front-end activities, adapting to changing operational needs
- Delivered customer service through clear communication, resolving issues and improving shopping satisfaction

Internship Student, VG Systems, Fairfax, VA Jun - Aug 2022

- Developed learning tools striving to help teach elementary kids alongside teacher demonstrations
 - Debugged React JavaScripts on numerous business projects
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Publications

Published in the International Journal of Social Science & Economics, May 2023

- Researched identifying early signs of Parkinson's using a Machine Learning Neural Network Prediction Model based on typical patient symptoms.
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Projects

Undergraduate Research, CACI Scholar Development & Research Program, Fairfax, VA Starting Sep 2026

- Working with an Analog Discovery device to analyze various aspects of an RF chip
- Using Matlab/Simulink to model and simulate software defined radio

Undergraduate Research, Undergraduate Research in Mathematics, Blacksburg, VA Aug 2025 - Present

- Conducting research for using machine learning to model flow dynamics and heat transfer

AutoBoat Design Team, Virginia Tech, Blacksburg, VA Sep 2024 - Present

- As part of a robotics team funded by Virginia Tech, we create two completely electrical sailboats. I have personally contributed by working with the Computer Vision detection, electrical wiring, data organization and manipulation, and general testing on the water.

VTHacks, Virginia Tech, Virginia Sep 2025

- Contributed to the development and training of computer-vision models for my team aimed at improving accessibility tools for hard-of-hearing users.

Battlecode Competition, MIT Jan - Mar 2025

- A real-time strategy game in which my team writes code for an autonomous player using artificial intelligence, pathfinding, and distributed algorithms to make an effective contender for tournaments.