

Brady A. Pettengill

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Motivated Computational and Data Sciences student at George Mason University who enjoys solving problems and building practical software, from data analytics to full-stack apps and cybersecurity challenges. Passionate about learning new tools and creating solutions that make technology smarter and more useful!

EDUCATION

B.S. Computational and Data Sciences

Expected May 2026

Minor in Computer Science

George Mason University

Advanced Diploma, Herndon High School

June 2022

PROJECTS

Adaptive Cruise Control: Basic adaptive cruise control using computer vision with Python and OpenCV, communicating with the car via CAN bus and integrating with the existing cruise control through a PID controller.

Messaging App: Desktop chat platform with client-server functionality, written in Java using Swing and MySQL.

Discord Bot: Versatile bot with a range of features including music playback, weather fetching, image processing capabilities, a to-do list, and management tools. Developed in Python and later (partially) re-written in JavaScript.

Utility Website: A collection of various web apps built using the MERN stack (MongoDB, Express, ReactJS, NodeJS). Contains basic tools like a URL shortener and pastebin.

SKILLS

Languages: Python, C, C++, JavaScript, R, MATLAB, Java, SQL, Swift, Bash

Libraries: NumPy, Pandas, Scikit-learn, OpenCV, MySQL, MongoDB, NodeJS, Express

Tools/Platforms: Git, Linux, Docker, NGINX, Cloudflare, GCP, Wireshark, Ghidra, GDB, Nmap

Soft Skills: Team collaboration, problem-solving, adaptability, technical communication, leadership

EXPERIENCE

George Mason Cyber Team

Sep. 2023 – Present

CTF Competitor

Fairfax, VA

- Compete in NCL and collegiate CTFs, focusing on web, crypto, and reverse-engineering challenges.
- Apply tools such as Burp Suite, Wireshark, Nmap, Ghidra, and GDB to identify and exploit vulnerabilities.
- Collaborate with teammates to solve real-world-style cybersecurity problems under tight time constraints.

State Farm Insurance

May 2024 – Sep. 2025

Digital Marketing Coordinator

Vienna, VA

- Created and managed digital advertising campaigns, building an online presence with the goal of driving sales.

Nando's PERi-PERi

Dec. 2021 – May 2024

Restaurant Manager

Reston, VA

- Oversaw financial performance, inventory management, marketing and outreach, and hiring/scheduling staff.

FIRST Robotics FTC Team

Aug 2021 – May 2022

Software Team Lead

Reston, VA

- Co-founded the non-school-affiliated FTC robotics team "Independent Robotics."

- Developed software for our robot, including both manual control and autonomous operation.

Herndon High School AFA CyberPatriot Team

Sep. 2020 – June 2022

Founder and President

Herndon, VA

- Founded HHS CyberPatriot team "CyberHornet," reaching national semifinals in both years of competition.
- Focused on the development of our Linux sub-team, introducing members to the use of Linux-based systems.
- Worked extensively with bash scripting to automate standard competition procedures.