

Brian Muhic

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EDUCATION

Virginia Tech, College of Engineering
B.S Computer Science, Minor in Math
• In-Major GPA: 3.94 | GPA: 3.63

Blacksburg, VA
Expected May 2026

TECHNICAL SKILLS

Java, C, C++, Python, Assembly, Bash, Git, Linux, SQL, MATLAB, JavaScript, PostgreSQL, Docker, Simulink, AWS, Apache Kafka, Artificial Intelligence, Data Structures, Object-Oriented Programming, Software Testing, Static Code Analysis

EMPLOYMENT

- Software Engineer Intern | General Dynamics Mission Systems** **May 2024 – August 2024**
- Software developer for a high-speed data collection system deployed to Navy ships and facilities, supporting the full software development life cycle including designing, coding, documenting, testing, and integrating the software.
 - Engineered a TCP-based data transfer protocol and implemented advanced data visualization functions to enhance accuracy in data analysis.
 - Designed and implemented cross-language message handling interfaces between Java and C++ applications, facilitating real-time data exchange over TCP/IP for system performance optimization.
 - Successfully executed a comprehensive code refactoring initiative, eliminating legacy CORBA dependencies to modernize and streamline the software architecture for improved maintainability.
 - Developed a resilient feature for remote system status data preservation, enabling local backup on external computers to safeguard against data loss.
- Software Engineer Intern | Centrifuge** **May 2023 – August 2023**
- Developed an image recognition system leveraging Python and YOLOv8, enabling real-time object classification from internet-streamed video feeds, enhancing surveillance capabilities.
 - Enhanced model accuracy by meticulously training with diverse datasets, significantly boosting prediction confidence for critical object detection tasks.
 - Implemented a robust PostgreSQL database solution to log object classifications, timestamps, and prediction confidences, ensuring detailed record-keeping and data integrity for analytics.
- Web Developer | TDAY Sports** **June 2023 – August 2023**
- Spearheaded the development of a dynamic website for a sports media company, delivering a scalable and responsive online platform to engage a diverse audience.
 - Crafted an immersive user experience by employing HTML, CSS, and JavaScript, integrating multimedia content such as images, articles, and videos to drive user interaction and retention.
 - Implemented a PHP-based backend system to capture viewer email addresses, creating a robust email subscription list that significantly enhanced viewer engagement and outreach initiatives.

RELEVANT EXPERIENCE

- Hokie Electric Vehicle Team | Team Member** **December 2022 – Present**
- Working on optimizing a 2023 Cadillac LYRIQ over four years.
 - Responsible for the controls of all longitudinal motion of the vehicle, including interfaces with automated features.
 - Design and test the propulsion system for the electric vehicle challenge.
- Web Packet Tracer | Developer** **December 2023**
- Developed a network tracing application that visualizes packet routes from source to destination for any given domain name, utilizing the Dazzlepod API to geolocate router IPs and employing gmplot for Google Maps integration, complete with robust error handling to manage invalid IPs and duplicate coordinates.
- HackDown Hackathon | Programmer** **November 2021**
- Engineered an innovative multi-purpose environmental control system to regulate confined and extraterrestrial habitats, featuring sensor integration and a user-centric interactive website for real-time adjustments.
 - Awards: Best Sustainability Hack and Best Space App sponsored by Space Force.

LEADERSHIP

- Vice President | Delta Chi Fraternity** **September 2024 – Present**
- Responsible for managing 15 chairman positions and assisting them with accomplishing their respective duties.
 - Developed a mentor program for our new members with our brothers to assist with their studying.
 - Created a designated driving committee to ensure safe rides for all members.
 - Oversees a chapter of 100+ members.