

DOMINIC J. MEOLI III

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SUMMARY

Academic senior pursuing a degree in computer engineering with concentration in machine learning and robotics at Virginia Polytechnic Institute and State University. Recognized for adept leadership, interpersonal skills, strong verbal and written communications, and organizational abilities. Seeking a technical, full-time role centered around innovation in an interdisciplinary team.

EDUCATION: **School:** Virginia Tech, Blacksburg, VA **Degree:** Bachelor of Science
 Major: Computer Engineering **Minor:** Disabilities Studies
 Expected Graduation: May, 2026 **GPA:** 3.5
 Relevant Coursework: Principles of Robotics, Embedded Systems, Machine Learning,
 Physical Electronics, Data Structures, Applied Software, Technology and Disability

SECURITY CLEARANCE: Top Secret in Adjudication

EXPERIENCE:

Mechanical Engineering Senior Design **August 2025 – Current**

Project Manager/Software and Electronics Lead Engineer

- Led an interdisciplinary team of 7 engineers to plan, design, and assemble an autonomous bricklaying robot, managing all project scheduling, resource allocation, and system integration to meet rigorous milestones.
- Engineered a comprehensive software stack using ROS2 to coordinate a mobile 4-axis gantry; developed custom firmware for 4 Teensy 4.0 microcontrollers to synchronize 14 motors for precise autonomous movement.
- Designed and implemented the sensor-level electronics for closed-loop control systems, utilizing hardware based feedback to translate digital infrastructure models into high-precision physical brick structures.

Huntington Ingalls Industries Mission Technologies **May 2024 – August 2024, May 2025 – January 2026**
Hardware/Software Engineering Intern

- Tasked with research oriented proposal work to learn and understand various methods for obtaining sensitive information from microprocessors and FPGAs.
- Performed practical work with hardware and software reverse engineering technologies to identify FPGA structures and bypass security protocols.
- Developed a data analysis tool in python to graphically represent electrical connections and component clusters of unidentified devices based on data received from a computer vision pipeline.

Virginia Tech 3D Prototyping Studio **November 2023 – May 2025**

Fabrication Attendant/Technical Consultant

- Provided technical support to aid design and implementation processes for Mechanical Engineering design teams.
- Mentored patrons in the effective use of technical tools and equipment, enabling learning of applicable knowledge.
- Designed, documented, and taught a practical, beginner friendly electronics and 3D printer workshop.

Assistive Robotics Lab **January 2024 – May 2024**

Mechanical Engineering Undergraduate Research

- Configured and integrated motor controllers in a mechanical system to enhance capabilities of a wearable exoskeleton.
- Gained experience working in an interdisciplinary engineering environment.

Army Cyber Institute **June 2022 – July 2022**

Research Intern

- Conducted team-based data collection, modeling, and analysis on the applications of neural networks to perform cryptography by modifying behavioral patterns of Python based algorithms.