Aaditya Sharma

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Education

Virginia Tech **May 2027**
Bachelor of Science in Computer Engineering | Focus in Control, Robotics, and Autonomy and Machine Learning, Minor in Computer Science *Blacksburg, VA*
GPA: 3.67 *Deans List | Honor's College*

Experience and projects

Statistical Process Control and R2R Engineer **May 2025 – Aug. 2025**
Micron Technology, Inc. *Manassas, VA*

- Developed proprietary Change Point Monitoring (CPM) system for R2R automation, enabling real-time detection of negative or unintended process changes through data analysis
- Developed ARIMA-based predictive model to analyze GeRM RPA data, identifying trends, shifts, and clamps to proactively flag and mitigate potential wafer processing issues
- Built automation of Metric Data Reports, utilizing Tableau API calls to extract and structure data for weekly reporting, significantly improving accessibility and efficiency for SPC engineering teams

Undergraduate Teaching Assistant **Aug. 2024 – Present**
Virginia Tech – ECE 2564: Embedded Systems / ECE 2514: Computational Engineering *Blacksburg, VA*

- Guided students through foundational Embedded Systems and Architecture and C++
- Led in-person lab sessions focused on hands-on programming and problem-solving
- Supported student development with tools including Git, CMake, and logic visualization techniques

WorkCell - Autonomous 3D Printing System
ECE and Software Lead | VT CRO *VT News Article*

- Designed and developed a fully autonomous multi-printer 3D manufacturing workcell integrating print execution, automated part removal, storage, and centralized queue management
- Implemented a novel closed-loop auto-calibration system using computer vision and AprilTags, employing dynamic camera tracking to achieve 0.2mm gantry positioning accuracy
- Developed optimization algorithms for inventory management, automating shelf placement logic based on print height constraints and real-time storage availability

President **Aug. 2025 – Present**
Virginia Tech Competitive Robotics Organization, VT CRO *vtcro.org*

- Led Virginia Tech's largest robotics organization, overseeing 120+ engineers across 7 technical design teams and 4 operational divisions
- Directed organizational strategy and technical vision for multidisciplinary robotics projects spanning electrical, mechanical, and software systems

Technical skills

Languages: C++, Python, Java, JavaScript, C
Embedded & Platforms: Arduino, Raspberry Pi, Jetson Nano, ESP32, MSP432, Computer Vision
Tools: ROS, GitHub, VSCode, Fusion 360, OnShape, KiCAD, Pandas, Microsoft Office, Google Workspace

Initiatives

Courses By You- Founder & Teacher **Chandigarh, India**

- Designed and taught workshops to 350+ students on coding, robotics, and debating fundamentals
- Developed structured and certified curriculum in partnership with FuturoKnowledge

Plasmassist / Covassist - Founder **Remote / Chandigarh, India**

- Built plasma donation platform that helped save 15 lives and connected 1,500+ individuals with COVID-19 resources
- Led a 14-member volunteer team; built and maintained resource-sharing infrastructure