Vu Truong

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EDUCATION

University of Maryland College Park, MD

B.S., Mechanical Engineering **GPA:** 3.525 Anticipated May 2026

Relevant Coursework: Electronics and Instrumentation I & II, Machine Design, Product Design and Manufacturing, Remote Sensing, Aircraft Propulsion, Power, and Thermal Systems Design and Simulation

SKILLS

Technical Skills: CAD (Fusion 360, SolidWorks), Python, ROS/ROS2, PX4, Ardupilot, Gazebo, C++, Ubuntu, Linux OS, 3D printing, MATLAB, NVIDIA Isaac Sim, FAA Part 107 (in progress)

Additional Skills: Project Management (Asana), Microsoft Office, Google G Suite, Zapier

RELEVANT EXPERIENCES

xFoundry Crossfire - Wildfire Response College Park, MD

Intern - Suppression Autonomy (drone & payload) Aug. 2025 - Present

- Modify and integrate a Freefly Systems Alta X drone for autonomous wildfire suppression response.
- Utilize ROS2, Python, Gazebo, and PX4 to program autonomous flight, integrating wildfire detection model, real-time location correction, and payload drop.
- Implement NVIDIA Isaac Sim with PX4 integration to simulate and validate full autonomous drone system behavior, including perception, navigation, and control using a VLM.

Maryland Unmanned Aerial System (MUAS) College Park, MD

President/Team Captain Aug. 2024 - Present

- Lead multidisciplinary development of an autonomous sUAS, coordinating airframe, avionics, autonomy, and payload integration.
- Support CAD design, hardware assembly, software integration, testing, and system-level troubleshooting across the full UAS system.
- Contribute to ArduPilot, ROS2, and YOLO-based autonomy pipeline for mission planning, perception, object detection, and flight system integration.
- Performed power and range calculations to assess and validate flight endurance and payload capacity under various mission scenarios.

Senior Capstone Project - Autonomous Snow Removal Robot College Park, MD

Team Member Aug. - Dec. 2025

- Collaborated with 5 peers to research, design, build, and test an autonomous snow removal robot.
- Designed and wired drivetrain and actuator control systems, integrating motor controllers, onboard electronics, and control signals into an ArduPilot-based architecture to support autonomous navigation.
- Supported component selection, system troubleshooting, and validation of electromechanical subsystems during development.

Untethered Labs, Inc. | GateKeeper Greenbelt, MD

Intern - Operations Assistant Jun. 2024 - Present

- Supported operations, website updates, shipping logistics, and workflow improvements in a startup environment.
- Designed product mockups for a proposed new product offering and built custom electronic demo hardware, including wiring, circuit integration, enclosure fabrication, and troubleshooting.

PROJECT

BOZOPAD Silver Spring, MD

Club/Personal Project Sep. 2021 - Jun. 2022

- Designed a custom through-hole PCB, firmware (QMK), and housing enclosure for a 3x4 macropad keyboard. Co-developed the assembly instructions, packaging, and safety training presentations.
- Collaborated in a team setting to complete the full product lifecycle from design to deployment.