

TAN CHAU

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EDUCATION

George Mason University

B.S. Mechanical Engineering / Aerospace Engineering, GPA: 3.4

August 2023 – May 2025

Fairfax, VA

Northern Virginia Community College

A.S. Engineering, GPA: 3.8

August 2020 – May 2022

Annandale, VA

SKILLS

Technical: Python, C++, Arduino, CAD/CAM (Fusion360, AutoCAD, SolidWorks, Inventor), Machining (CNC, HAAS Lathes/Mills), Prototyping/Manufacturing, FEA (ANSYS), Tooling Setup & Optimization

Languages: English and Vietnamese.

EXPERIENCE

Mason Innovation Exchange – Mason Enterprise

Maker Space Associate

September 2024 – Present

George Mason University

- Led the design and fabrication of George Mason University's CES booth display, managing the project from concept development through final construction.
- Managed and maintained a full-service fabrication lab (Fab Lab), overseeing the safe and effective operation of CNC machines, laser cutters, and a full suite of wood and metal working equipment.
- Developed and instructed technical workshops on specialized fabrication equipment and processes, enhancing user proficiency and maximizing lab utilization.
- Spearheaded the comprehensive maintenance and upkeep of all lab equipment across the MIX, ensuring peak operational readiness.

Lambda Phi Epsilon

Philanthropy Representative |

George Mason University

April 2023 – Present

- Led planning and execution of large-scale philanthropic initiatives with NMDP, coordinating logistics, outreach, and volunteer teams to support life-saving cell therapy and bone marrow donations.
- Directed community service campaigns and educational events to support local families and underserved populations, increasing campus engagement and organizational visibility.

PROJECTS

Consumer Electronics Show (CES) Topographical Display - GMU

August 2025 – Present

Design/Fabrication

- Led the design and fabrication of a 6×6 ft interactive display featuring a topographical terrain map of Northern Virginia.
- Executed precision CNC routing of the terrain base and managed the 3D printing and detailing of 40+ scaled tech company building models.
- Managed integration of custom model train tracks and scenic elements to showcase GMU as the central tech innovation hub.

Soft Robotic End-Effector – International Collaboration

April 2024 – May 2025

Mechanical/Fabrication | *Capstone Project*

Fall 2024 – Spring 2025 | George Mason University

- Collaborated with KL University to design a soft gripper for gentle handling in medical and agricultural applications.
- Developed and tested a pneumatic soft gripper using 3D-printed molds and silicone casting, integrated with the VEX Clawbot V5 for control.
- Designed and integrated a compact electronics case onto a mobile robotic platform, improving portability, protection, and field-testing capability.

Wildlife Tracker / Health Monitor – Hackathon Project Winner

April 2025 – HackFax Hackathon

IoT/Wildlife Monitoring

George Mason University

- Developed a wearable IoT device to monitor animal behavior and stress via GPS, heart rate, motion, and temperature sensors.
- Used an ESP32 microcontroller to collect and transmit real-time data wirelessly to a cloud database (Oracle Cloud).
- Built a compact, animal-mountable prototype using 3D printing and sensor integration.
- Designed a centralized dashboard for future AI-based pattern recognition and behavior analysis.