Giang Anh Vu

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Education

University of Michigan — Ann Arbor, MI
Bachelor of Science, Mechanical Engineering — May 2027

Montgomery College — Rockville, MD
Associate of Science, General Engineering, GPA: 3.7/4.0 — May 2025

Experience

University of Michigan Magnetometer Laboratory — Ann Arbor, MI
Research Assistant — Aug 2025 – Present

- Develop ML models achieving 94% recall for geomagnetic storm prediction using Random Forest classifiers, enabling early warning systems for satellite infrastructure; authoring research paper.
- Analyze magnetometer data to correlate solar events with geomagnetic fluctuations; research material properties for optimal sensor selection on NASA missions.
- Calibrate and maintain Helmholtz Coil apparatus for RM3100 sensor testing.

Mathnasium — Clarksville, MD
Math Instructor — May 2024 – June 2025

- Instructed K-12 students in Calculus I–III for AP exam preparation; developed personalized learning plans to improve mathematical reasoning and STEM interest.

Leadership & Activities

Phi Theta Kappa College Honor Society — Rockville, MD
Montgomery College Vice President — Aug 2024 – June 2025

- Coordinated events engaging 400+ honor society members; represented chapter at regional meetings.

Montgomery College Student Government Association — Rockville, MD
Treasurer — Dec 2023 – June 2024

- Managed $40,000 budget, overseeing financial allocations for 40+ student organizations; approved $28,000+ in resources through bi-weekly meetings.

Projects

Lucentia | *TypeScript, Next.js, React, PostgreSQL* — Sep 2025 – Present

- Developed full-stack financial intelligence platform using Next.js, React, and PostgreSQL that classifies spending, detects anomalies, and reduces manual accounting time by 90%.

UM Electric Boat | *SolidWorks, Siemens NX* — Sep 2025 – Present

- Design and manufacture world record-fastest electric boat hull optimizing efficiency and safety using SolidWorks and Siemens NX across engineering disciplines.

AWS Powered Autonomous Robot Car | *Python, AWS, Creo Parametric* — Feb 2023 – June 2023

- Programmed reward functions in Python for autonomous navigation; designed collision-resistant outer shell using Creo Parametric.

Skills & Interests

Technical Skills: Python, TypeScript, JavaScript, C++, MATLAB, Machine Learning (scikit-learn, Random Forest), PostgreSQL, Docker, Git, CAD (SolidWorks, Creo Parametric, Siemens NX), Digital Logic
Languages: English (Fluent), Vietnamese (Fluent), Spanish (Conversational)