Timothy Pham

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University of Michigan-Ann Arbor **Ann Arbor, MI**
Bachelor of Science in Aerospace Engineering *Expected Graduation:May 2026*
Minor : *Space and Climate Engineering*

WORK EXPERIENCE

DTE Energy **Detroit, MI**
Power Distribution Engineering And Design Intern *June 2025-Present*

- Designed and planned electrical grid upgrades, producing work packages, material lists, and circuit diagrams using ESRI/ArcMap.
- Developed and implemented new NETBANKs for systemwide deployment.
- Collected field data and assisted with construction plan development using ESI and Maximo.
- Performed pole loading, cable tension, transformer sizing, and voltage drop calculations.

DTE Energy **Detroit, MI**
Engineering Management Co-op *August 2024-June 2025*

- Designed, implemented, and maintained electrical systems for critical infrastructure projects, including the restructuring of Dearborn, MI's electrical grid to improve efficiency and reliability.
- Led troubleshooting and root cause analysis of electrical system, resolving performance issues and optimizing work order availability.
- Analyze the performance of the Sub transmission/transmission systems and develop a plan to resolve identified issues to improve reliability of the electrical system.
- Interpreted and revised electrical schematics, ensuring accuracy and compliance with project specifications.

Hyundai Motor Group **Ann Arbor, MI**
Vehicle Energy Efficiency Intern *May 2024- August 2024*

- Utilized ETAS INCA software to validate and calibrate fuel economy parameters, contributing to a 30% MPG increase in Hyundai's latest ICE models.
- Optimized DFCO strategies and transmission shift patterns to enhance fuel efficiency and vehicle performance.
- Conducted research on Hybrid Cell Systems, contributing to a patent application for an innovative EREV charging system.
- Designed the framework for an electronic key fob patent, enabling real-time vehicle data display directly on the fob for enhanced user convenience and accessibility.
- Developed Python scripts for automating variable parsing and calibration adjustments in .dat and .mdf files.
- Collaborated with engineers in Korea to refine testing protocols and validate fuel efficiency improvements.

PROJECTS & ACTIVITIES

M-Racing **Ann Arbor,MI**
Aerodynamics & Powertrain Development

- Designed side aero secondary and tertiary elements using 3D modeling and validated performance with CFD software (XFoil, Star-CCM+).
- Conducted wind tunnel testing to confirm CFD data accuracy.
- Integrated aerodynamic systems with powertrain, cooling, suspension, and chassis components.

American Institute of Aeronautics and Astronautics **Ann Arbor,MI**
Social Committee Member

- Engaged and educated prospective students on the aerospace industry through dynamic communication strategies.
- Orchestrated outreach activities, including workshops and networking sessions, linking academic learning with industry insight.

SKILLS

Programming Skills: C++, Python, MatLab, Simulink, VBA, C
CAD Skills: AutoCAD, X-Foil**,** Star-CCM+, SolidWorks, Inventor, ArcMap
Manufacturing Skills: CNC Mill, Welding , Power tools, Soldering, Composite Fabrication, Control System Design