Thong M Tran

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EDUCATION

University of California, Irvine   **Irvine, CA**

Bachelor of Science, Mechanical Engineering   *Expected Graduation 2025*

- Current GPA: 3.95/4.00

WORK EXPERIENCE

ASML/CYMER   **San Diego, CA**

Mechanical Engineering Intern   *June 2024-September 2024*

- Performed vibration analysis on the Line Narrowing Module (LNM) using Siemens TestLab software
- Conducted testing with impact hammers and accelerometers to identify mode shapes and vibration sources
- Proposed a passive damping solution in PTC Creo, reduced vibration by 70%, shortened downtime by 1 hour

Newport MKS Instruments   **Irvine, CA**

Mechanical Engineering Intern   *June 2023-June 2024*

- Designed optomechanical components using SolidWorks, focusing on fixturing and alignment
- Reverse-engineered and procured industrial components, saving over $30,000 in production costs
- Coordinated with in-house machine shop and other suppliers to manufacture and procure custom hardware

Industrial/Manufacturing Engineering Intern   *March 2023-June 2023*

- Oversaw the calibration and imaging process for Sector Heater manufacturing used in lithography systems
- Worked extensively with laser, LED measurement, beam profiling, precision motion control, optical tables, vibration isolation systems, photonics instruments, temperature sensing, and optomechanical components
- Collected and analyzed data with LabView to enhance product performance for optical assemblies

ENGINEERING PROJECTS

SpaceX Hyperloop Pod   **Irvine, CA**

Structural/Dynamics Engineer   *August 2024-Present*

- Designed suspension systems to stabilize and guide the Hyperloop pod along the I-beam
- Simulated pod dynamic system in Simulink, enhancing suspension efficiency by 30%
- Designed a transport vehicle with a lifting mechanism for the 300 kg pod, cutting maintenance time by 1 hour

Formula SAE Electric Racing   **Irvine, CA**

Aero/Body Engineer   *September 2022-June 2023*

- Responsible for designing, testing, and manufacturing aerodynamic components of an electric racecar
- Performed Finite Element Analysis in Solidworks to optimize drag/downforce by 20%
- Fabricated nose cone, front wing, and body panels with high precision

SKILLS

- Softwares: PTC Creo, SolidWorks, AutoDesk, Onshape, Arduino, Windchill, Siemens Testlab, Microsoft Office
- Programming Applications: Python, C++, MATLAB, Visual Studio
- Fabrication: CNC machining, sheet metal fabrication, injection molding, 3D Printing, Laser Cutting, etc.
- Applications: GD&T, Finite Element Analysis, Thermal/Heat Transfer, Fluid Dynamics Analysis
- Other skills: Fluent in Vietnamese, Clear Communication, Detail-Oriented, Result-Driven