Nachiket Adhvaryu

Nachiketadhvaryu.ca

Vancouver, British Columbia

Nachiket.adhvaryu@gmail.com | (604) 376-1095

Technical Skills

Mechanical

- SolidWorks CAD and FEA
- Catia V6 (3Dexperience) CAD
- Design for Manufacturing/Assembly (DFM/DFA)
- Failure Mode Analysis (FMEA)

Manufacturing

- HSMWorks CAM, CNC Machining
- Manual machining - Lathe / Mill
- Waterjet Cutting
- Sheet metal bending
- Drill press, Bandsaw

Software

- Microsoft Excel
- C, Python
- MATLAB
- Arduino

Professional Experience

Tesla, Fremont, California **February 2025 – September 2025**

Mechanical Design Engineering Intern

- Integrated advanced thermal hardware into 2 legacy vehicles, resolving packaging constraints, designing mounting brackets, and implementing **50+** sensors to validate the latest thermal system
- Engineered and sourced an injection molded distribution bracket from an immature CAD concept, reducing per-vehicle cost by **$40** and per-vehicle mass by **1.3kg**

Invinity Energy Systems, Vancouver, British Columbia **May 2024 – September 2024**

Product Design Mechanical Co-op

- Redesigned a large sheet metal frame assembly from the ground up, using DFM to reduce unit cost by **20%**
- Utilized DFA to foolproof the assembly process by reducing number of unique parts by **40%** and total part count by **20%**
- Performed detailed FEA on the frame to optimize the design of larger parts to reduce weight by **35%**

Moon and Mars Industries, Vancouver, British Columbia **September 2023 – December 2023**

Mechanical Engineer Co-op

- Transformed a conceptual launch rail into a manufacturing-ready design, incorporating DFM and DFA principles to simplify construction of several large weldments and reduce manufacturing costs by **10%**
- Applied FEA, hand calculations and intricate Excel models to understand force response of complicated systems, optimizing them to achieve **15%** more strength and **20%** more rigidity

Engineering Student Teams

Formula UBC Racing, University of British Columbia **April 2024 – Present**

Steering, Brakes and Driver Controls Team Lead

- Leading a team of 8 members and supporting engineering projects such as pedal systems, steering and brakes
- Presenting team-wide presentations on project feasibility assessments
- Organizing sub-team training for FEA, material selection and failure mode analysis

Formula UBC Racing, University of British Columbia **September 2022 – April 2024**

Steering, Brakes and Driver Controls Member

- Created a pedal box focusing on reliability and manufacturing simplicity, decreasing part count by **60%** and weight by **50%** as compared to the previous pedal box

Technical Projects

CNC Router, Personal Project **August, 2023**

- Designed and built a CNC router from scratch that reliably machines aluminum and hardwoods for only **$200**
- Implemented DFM and DFA principles to optimize initial design, reducing number of parts by **25%**

Education

University of British Columbia, ***Mechanical Engineering*** **September 2021 – May 2026**

Cumulative GPA: 83%