Ohm Patel

ohmpatel200@gmail.com | +1 (289) 668-1531 | Toronto, Canada | ohm-patel.com

Education

University of Toronto — **Toronto, Canada**
Master of Engineering in Aerospace Engineering — *September 2024 – May 2026*

Queen's University — **Kingston, Canada**
Bachelor of Applied Science in Mechanical Engineering — *September 2018 – May 2023*

Work Experience

Tenstorrent — **Toronto, Canada**
Mechanical Simulation Intern — *January 2026 – August 2026*

- Performed thermo-mechanical FEA simulations in Ansys APDL to quantify warpage on 2.5D packages featuring multiple chiplets and an interposer.
- Optimized stiffener ring geometries to balance package warpage and die corner stress by developing a predictive surrogate model in Python.

Red Rabbit Robotics — **Vancouver, Canada**
Hardware Engineering Intern — *May 2025 – August 2025*

- Developed and integrated the hardware systems for humanoid robots, ensuring they were reliable and manufacturable.
- Designed 7–DOF robotic arms in SolidWorks in accordance with ASME GD&T standards, and oversaw CNC and sheet-metal fabrication with overseas suppliers.
- Prototyped 3D printed test rigs to validate robotic arm designs, test servo motor performance, and calibrate LiDAR and depth cameras.
- Assisted the software team by creating Python scripts to generate accurate URDF models for visualization in RViz.

Howmet Aerospace — **Georgetown, Canada**
Quality Engineering Intern — *June 2023 – October 2023*

- Analyzed defect data to develop and implement quality assurance processes to ensure product compliance with AS9100D aerospace standards and created 50+ work instructions for the investment casting manufacturing processes.
- Performed root-cause analyses to identify the source of defects and recommended preventative measures by collaborating with the production floor.

Parks Canada — **Peterborough, Canada**
Project Engineering Intern — *May 2021 – August 2022*

- Supported the project managers to facilitate the successful completion of $3M – $10M marine infrastructure projects through design verification, project documentation, budget management, site inspections, and equipment testing.
- Designed solar-powered dam water level sensor using SolidWorks to develop mechanical housings, mounting hardware, and internal electronics packaging.

Enerflex — **Abu Dhabi, UAE**
Mechanical Engineering Intern — *June 2020 – September 2020*

- Collaborated with senior engineers on equipment sizing for upstream oil & gas applications through calculations, material selection, and evaluation of technical design documents.
- Assisted in the development and revision of P&IDs and PFDs for the compressor systems.

Extracurricular Activities

Queen's University Formula Design Team | *Chassis Lead* — *September 2018 – May 2023*

- Led a student team in the development of a Formula SAE race car chassis by creating SolidWorks CAD models, performing Ansys FEA for static and dynamic loading, and validating chassis performance through physical torsion testing.
- Designed PCBs using Altium Designer to ensure functionality for driver HUD, sensors, and electronic systems for the vehicle.

Technical Skills

Design & Analysis: SolidWorks, Ansys (Mechanical, Fluent), Altair Hyperworks, Altium Designer
Programming: Python, MATLAB, Simulink
Manufacturing & Hardware: 3D Printing, CNC Machining, Soldering, Arduino
Technologies: Microsoft Office Suite (Word, Excel, PowerPoint), Linux