

Shiv Pinteshkumar Patel

416-566-3807 | s70patel@torontomu.ca | [linkedin.com/in/shiv-pinteshkumar-patel](https://www.linkedin.com/in/shiv-pinteshkumar-patel) | github.com/shivpatel-5

EDUCATION

Toronto Metropolitan University

Bachelor of Engineering, Aerospace Engineering

Toronto, ON

September 2023 – Expected May 2028

TECHNICAL SKILLS

Project Management: MS Project, Risk Management, Budgeting, Gantt Charts

Analysis & Design: SolidWorks, CATIA, ANSYS (Fluent/Structural), XFLR5, Complex Assembly Design, Stress Analysis, DFM

Programming & Tools: MATLAB, Python, LaTeX, GitHub

Productivity: Microsoft Excel (Advanced/Macros), Microsoft Office Suite

RELEVANT EXPERIENCE

Academic Link (AL) – Student Advisor

May 2025 – Present

Faculty of Engineering - Toronto Metropolitan University

Toronto, ON

- Managed the scheduling and execution of peer-learning sessions for 200+ students, acting as the primary point of contact for academic support and risk identification.
- Executed monthly student programs adhering to a strict \$100 budget; leveraged video editing and graphic design for promotional campaigns to drive a 15% increase in attendance KPIs.

Research and Development Specialist

August 2025 – Present

Metropolitan Hyperloop

Toronto, ON

- Led the **conceptual design** phase for passenger comfort and seating, utilizing technical research to prepare business-case justifications for material selection and layout within strict spatial constraints.
- Conducted rigorous **structural analysis** on the pod using **ANSYS** to ensure integrity under operational loads, validating aeroshell designs for compliance with Global competition certification.
- Documented processes for **manufacturing** and quality standards, ensuring standardized workflows for the deployment of new pod technology.

Rocket Designer and Team Lead

September 2024 – December 2025

Metropolitan Aerospace Rocketry Society

Toronto, ON

- Managed the **manufacturing schedule** for a team of 4 and developed a unique fin design reinforced with epoxy composites to mitigate aerodynamic instability and reduce build time by 24 hours.
- Oversaw flight readiness reviews achieving 98% stability and a record-breaking 445-meter apogee, resulting in a Director's Award and the competition's first-ever upright rocket landing.
- Promoted to Technical Lead in Training to manage resource allocation, facilitate safety training, and oversee the **3-D design** workflow for junior members.

Industry Outreach Specialist - Event Manager

May 2025 – Present

Canadian Aeronautics and Space Institute - University Branch

Toronto, ON

- Managed external stakeholder communications and logistics for major industry events, coordinating with partners like MDA, Nordspace, and Pratt & Whitney.
- Spearheaded outreach to senior engineers and industry professionals at leading aerospace companies, securing guest speakers and technical presenters for collegiate conferences.

PROJECTS

Walking Robot (Design & Simulation) | SolidWorks, ANSYS, MATLAB

Jan 2025 – May 2025

- Led design lifecycle of a spider robot, optimizing **manufacturability** of linkages and motor housings.
- Performed **kinematic analysis** to maximize speed, securing a Top 5 placement among 50 teams.

Personal Projects: 3D Modeling | SolidWorks, CATIA, ANSYS Fluent

May 2025 – Present

- Designed a full-scale DA 50 RG aircraft in **CATIA V5**, utilizing surface modeling to replicate aircraft geometry.
- Constructed a complex V6 engine assembly in **SolidWorks**, utilizing motion analysis to validate mechanical fit.
- Developed an experimental wing concept utilizing the Magnus Effect to maximize lift-to-drag ratio and validate aerodynamics in **ANSYS Fluent** for an RC plane competition.
- Led the physical construction of a composite wing for a glider competition; 3-D modeled the custom wing under strict deadlines and safely operated **power tools** (laser cutter, grinder) in a **lab environment**.