

Nikhil Patel

Canadian Citizen || pnikhil2305@gmail.com || [Project Portfolio](#) || [Linkedin](#) || [GitHub](#)

Education

University of Saskatchewan, Saskatoon Sk, Canada 09.2023 – Current

Bachelor of Science in Electrical Engineering – **B.Sc. Electrical Engineering**

Relevant Courses: AutoCAD, Data Structures & Algorithms (Python, UNIX, C), Statistics and Probability (Excel), Signals and Systems (MATLAB), Digital Electronics, Electromagnetism and Waves, Mechanics.

Project Work

[Project UP](#) | UofS Space Team (High Power Rocketry) – Launch Canada 2025 09.2024 – 09.2025

Propulsion Team Lead | OpenRocket, SolidWorks, ANSYS, Excel

- Defined requirements and led design, analysis, simulation and testing for rocket propulsion systems.
- Utilized CAD for design and integration of propulsion structures using SolidWorks and Fusion 360 modeling.
- Focused on boat tail, thrust plate, and motor retention *achieving a 15% increase in apogee.*

[ARTS](#) | Personal Project (Open Source “Amateur Rocketry Telemetry System”) 01.2026 – Current

C++, Python, Modeling & Simulation, OpenRocket, ANSYS, Excel

- Designed, tested and flew a high-power rocketry flight computer that utilizes a microcontroller along with various sensors for rocketry guidance, navigation and control (GNC).
- Implemented data logging systems and flight state machines for tracking and analyzing flight behavior.
- Developed various bench tests to ensure all systems perform as defined to meet safety requirements.
- Applied embedded architecture, sensor integration, and real-time processing for aerospace applications.

Work Experience

President & Propulsion Lead – [UofS Space Team](#) (USST) 09.2025 – Current

Leadership, Project Management, Systems Coordination, Operations

- Lead team operations including project planning, sponsorship, budgeting, and coordination with university faculty to support various engineering projects.
- Led rocketry propulsion development which included design, testing, and simulation, to ensure the system meets requirements for reliability and safety.
- Coordinated sub structure integration across teams, ensuring propulsion interfaces aligned with avionics, structures, and recovery systems for overall performance.

Summer Camp Instructor – SAIT Polytechnic (Technology Camps) | [Reference](#) 06.2023 – 08.2025

HTML/CSS, Python, Arduino, Raspberry Pi, VR/MR Systems, 3D Modeling, 3D Printing, Robotics, Instruction

- Taught grade 4-12 in summer camps that focused on programming, electronics, robotics, and emerging technologies (Arduino, Raspberry Pi, VR/AR/MR, and 3D printing), guiding students through project-based learning.

Scholarships and Training

CaNoRock Andøya Space Opportunity – 2024 | Andenes, Norway 03.2025

- Selected for the Andøya Space CaNoRock program, collaborating internationally to design, build, and launch a student sounding rocket in Norway.

Student Suborbital Payload Development Training Series – Canadian Space Agency 01.2026 – 05.2026

- Participated in the Canadian Space Agency’s Student Suborbital Payload Development Series, a program supporting university teams developing suborbital and high-altitude payload systems.

Technical Skills

CAD & Design:	Fusion 360, AutoCAD, OnShape, SolidWorks, Inventor, SketchUp, Revit
Simulation & Analysis:	OpenRocket, SolidWorks FEA, ANSYS, Fusion 360 Simulation,
Embedded & Programming:	C/C++, C, MATLAB, Python, HTML5/CSS,
Systems & Platforms:	Microsoft Office, Google Suite, Autodesk Online, BLE, IOT, UART, UNIX