

# Chayanth Suthahar

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## SKILLS & INTERESTS

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**Design Tools:** SolidWorks, Onshape, AutoCAD. **Fabrication:** Milling, Lathe, Bandsaw, CNC, Soldering

## EXPERIENCE

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### Strategy Representative and Design Member

Sept. 2022 - Apr. 2025

*FIRST Robotics Team 2056*

*Stoney Creek, ON*

- Strategized with **120+** teams on match tactics, analyzing opposing robots to optimize collaborative plays and maximize scoring.
- Designed over **10** major components on the robot using SolidWorks.
- Helped lead a **60+**-member team (with 15+ mentors and 8+ leads) to the 2023/2025 FRC World Championships, achieving **1st** place in Canada (2022–2025) and **1st** in the world (2025).

### Operations Team Member

Jul. 2023 - Nov. 2024

*Hammer Hacks*

*Stoney Creek, ON*

- Coordinated end-to-end logistics for the event with **140+** hackers from **17** high schools making **50** projects.
- Managed vendor relationships, sponsorship communications, and resource allocation to meet event timelines and budget constraints.
- Raised **\$12,000** in funding from **15** sponsors as a **501(c)(3)** nonprofit from McMaster Engineering, Hack Club, Inference Labs, and more.

### Board of Directors

Sept. 2022 - Jun. 2025

*Stoney Creek Youth Council*

*Stoney Creek, ON*

- Represented **1000+** youth issues in meetings with city officials and local organizations.
- Contributed to planning and promoting local projects that addressed youth needs and community development in Stoney Creek.
- Developed leadership, teamwork, and public speaking skills through regular council meetings and public presentations.

### Marketing Assistant

Jun. 2025 - Aug. 2025

*My Mulan Fantasy Dance Drama*

*St. Catharines, ON*

- Supported the development and execution of marketing campaigns to enhance brand reach and audience engagement.
- Contributed creative ideas for expanding Mulan's brand presence through social media, visual storytelling, and community outreach.
- Assisted with promotional activities, partnership coordination, and event-based brand exposure.

## PROJECTS

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### 2025 Robot chassis— “Lightning”

*FRC Team 2056*

- Engineered the chassis with precision using advanced CAD modeling tools.
- Oversaw precision manufacturing of all mechanical subsystems in-house, collaborating closely with teammates.
- Optimized performance and autonomous sequences, contributing to the team's recognition as Ontario Champions.

### Reconnaissance RC Airplane

*TMU aero design club - RC3*

- Engineered and modeled a custom RC sea plane with a 5.5-foot wingspan using SOLIDWORKS CAD.
- Fabricated a high strength-to-weight airframe made from plywood, aluminum spars, and carbon.
- Integrated onboard flight controllers and sensor systems to successfully achieve fully autonomous flight capabilities.

### ”VitalGroove”— AI System

*MakeUofT*

- Helped develop a ”Sense-Think-Act” loop on an NVIDIA Jetson Nano that uses Computer Vision to detect human interaction and trigger a response.
- Optimized a Vision-Language Model (VLM), ensuring the system processes camera feeds and LLM without crashing.

## EDUCATION

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### Toronto Metropolitan University

Toronto, ON

*Bachelor of Engineering (BEng) / Mechanical Engineering*

*September 2025*

- Developing skills in programming, CAD, and mechanical design.