PREMANSHU BHAGAT

Vaughan, ON ♦ premtsapj@gmail.com

WEBSITES, PORTFOLIOS, PROFILES

- https://github.com/cmd-cosmos
- www.linkedin.com/in/premanshu-bhagat

EDUCATION

BTech: Software Engineering Technology, Expected in 04/2027
McMaster University - Hamilton, ON

Advanced Diploma: Electromechanical Engineering Technology, 04/2024
Humber College - Etobicoke, ON

OBJECTIVE

Detail-oriented and technically minded problem-solver with a strong foundation in analytical thinking, research, and structured problem-solving. Demonstrates adaptability, initiative, and the ability to learn complex technical concepts quickly. I am skilled in data analysis, project coordination, and developing logical solutions in fast-paced, evolving environments. Seeking opportunities to apply transferable technical skills to deliver reliable and impactful software solutions.

My primary career objective is to contribute to advancements in spaceflight by developing software solutions that enhance spacecraft design, avionics systems, and propulsion technologies, supporting sustainable human exploration of outer space.

SKILLS

- Familiarity with C++, Java, HTML, CSS, MySQL, MongoDB, Git, WSL.

- Proficient in C, Python, NumPy, Pandas, ScikitLearn Tensorflow, Matplotlib, RS Logix 500,5000, AutoCAD Electrical/Mechanical, SolidWorks.

WORK HISTORY

Stock Unloader Associate, 02/2022 - Current
Walmart – Bolton, ON

- Unloaded merchandise from delivery trucks efficiently, ensuring timely processing.
- Sorted and organized products for optimal storage and retrieval.

- Operated manual and powered equipment to transport goods within the warehouse.
- Assisted team members with inventory management tasks to maintain stock accuracy.

Workshop Assistant, 09/2022 - 04/2024

Humber College – Etobicoke, ON

- Assisted in workshop preparation, ensuring all materials and tools were organized and ready for use.
- Supported instructors by setting up equipment and providing technical assistance during sessions.
- Collaborated with team members to maintain a clean and safe working environment for participants.

Lab Assistant, 09/2022 - 12/2022

Humber College – Etobicoke, ON

- Maintained accurate records of repairs and maintenance activities.
- Collaborated with instructors and fellow lab techs to streamline lab procedures and improve workflow efficiency.
- Performed basic equipment repairs and ensured enforcement of lab etiquette and safe practices.

PROJECTS

Satellite Orbit Classification — Machine Learning Project

- Implemented a decision tree classifier to classify satellites into LEO, GEO, MEO and Elliptical categories based on orbital parameters like Eccentricity, Semi-Major Axis, Period and Inclination.
- Link: [GitHub - Satellite Orbit Classification](#)

Machine Vision Defect Detection & Automation Demo Cell

- Developed a machine vision–based defect detection system using deep learning to classify products as acceptable or defective from image data in an industrial inspection workflow.
- Built an integrated demo cell showcasing advanced sensor technologies, including a deep learning–powered 2D vision camera, image-based code readers, barcode scanners, and RFID systems.
- Programmed PLC logic to coordinate machine vision outputs, sensor triggers, and high-speed barcode scanning for rotating products.
- Designed and implemented the HMI to monitor system status, visualize inspection results, and control operational sequences.
- Led mechanical system design and integration to support reliable sensor positioning, product handling, and trade-show deployment.
- Provided drafting and technical documentation support across multiple project teams to ensure consistency and integration readiness.