
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

Curious, reliable and detail-oriented individual with a growing understanding of technical concepts and analytical thinking. Interested in applying foundational skills while continuing to build practical knowledge through real-world work.

Long-term, motivated to build the skills needed to contribute to advancements in spaceflight through software development and engineering-focused problem-solving that support sustainable human exploration of space.

SKILLS

• Familiar With:

- C++, Java, HTML, CSS
- MySQL, MongoDB
- Git
- WSL

• Decent In:

- C, Python
- NumPy, Pandas, Scikit-learn 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.