

# Devesh Datwani

Worcester, MA 01609 | (978) 809-5026 | dbdatwani@wpi.edu

<https://github.com/deveshdatwani> | <https://www.linkedin.com/in/devesh-datwani-810249129/> | <http://deveshdatwani.com/>

## **OBJECTIVE:**

Seeking full time internship positions for the summer of 2022

## **EDUCATION:**

**MS in Robotics Engineering**, Worcester Polytechnic Institute, Worcester, MA, August 2021 - May 2023

**BE in Mechanical Engineering**, APIST, Mumbai University, August 2014 - May 2018

## **SKILLS:**

**Languages:** Python, C, C++, HTML-CSS

**Hardware Stack:** Arduino Uno, Raspberry Pi 3+

**Libraries/Frameworks/Tools:** GIT, Sklearn, ROS, Tensorflow, OpenCV, Numpy, Pandas, Scikit-Learn, MATLAB, Django, Flask AutoCAD, SolidWorks, AutoDesk Inventor, Linux

**Certifications:** Introduction to Self-Driving Cars, Applied Machine Learning, Robotics: Aerial Robotics, Python Programming

## **PROJECTS:**

**Trajectory Tracking for Autonomous Vehicles**, WPI, Worcester, October 2021 - December 2021

- Implemented PID and linearized feedback controllers for trajectory tracking
- Simulated the controllers in Google's CARLA environment and observed the results

**Traffic Sign Detection Using Mask R-CNN Network**, WPI, Worcester, September 2021 - December 2021

- Implemented adaptations to the Mask R-CNN to enhance its performance in detecting traffic signs
- Augmented the dataset to create motion blur, rain and condensation effects in order to increase model robustness

**Lane Detection**, Mumbai, December 2020

- Implemented canny edge detector using OpenCV on a defined ROI to detect road lanes and curbs
- Observed the results and made road safety inferences for Mumbai's Expressway

**Trends On The Map**, Mumbai, India, November 2020

- Designed and implemented a Twitter trends visualizer on the world map using the Flask micro web framework
- Deployed the application on an EC2 instance of AWS

**Toxic Comments Classifier for Instagram**, Mumbai, June 2020

- Extracted textual data from Instagram stories using OpenCV and PyTesseract
- Trained several machine learning models on toxic comments dataset to flag abusive instagram profiles

**Plasma Actuators for Flow Induction in Hollow Pipes**, APSIT, Mumbai, August 2017 - May 2018

- Designed and fabricated plasma actuators that induced volumetric flow of 9000 litres/hr
- Applied for a utility patent with the Intellectual Property of India

## **RELATED EXPERIENCE:**

**Graduate Student Researcher**, Surface Metrology Lab, WPI, Worcester, January 2022 - Present

- Assisting in building software that uses machine learning models to map flat surfaces

**Team Member**, Space Goat, WPI, Worcester, September 2021 - Present

- Selected as part of a 15 member team to represent WPI at NASA's Extreme Terrain Challenge 2022

**Data Analyst**, Admatazz Mumbai, India, December 2019 - November 2020

- Built web scraping tool that for targeted campaigns and NLP analysis
- Worked in a team to build machine learning models and visualize datasets to tune our campaign strategies

**Junior Web Developer Intern**, Nurture Labs, Remote, India, Remote, India, May 2021 - July 2021

- Worked in the back-end development team to build a social media sentiment analysis tool
- Wrote Pythonic scripts to automate data scraping from 52+ million users on Reddit, StackOverflow and ProductHunt