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Respected Hiring Manager,

My name is Devesh Datwani and I am a robotics engineering graduate student at the Worcester Polytechnic Institute, MA, USA. Kindly go through my portfolio: deveshdatwani.com for any additional information.

This is to express my interest for a full time opportunity starting Summer of '23 for the listed position and to articulate my skill set in deep & machine learning to support my claim of being a great fit for the role.

My robotics journey began in high school some 10 years ago when I started designing and building semi autonomous fixed wing aircraft powered by gas and electric motors to satiation my passion for aviation.

Since then, my tryst with robotics has involved pursuing mechanical engineering for undergraduate studies, robotics engineering as graduate study subsequently and working at labs such as the Propulsion Lab at the Aerospace Department of IIT Bombay, Human Inspired Robotics Lab, Surface Meteorology Lab and Popovic Labs at the Worcester Polytechnic Institute.

My expertise lie in; probabilistic robotics for state estimation; SLAM through ICP/scan-matching and structure from motion; deep learning approaches for multi-scale object detection and image segmentation. This makes me a great fit for roles involving perception. My programming strongholds involve writing quality code in Python, C++ and MATLAB and libraries like STL, PyTorch, TensorFlow, OpenCV, Scikit-Learn and Numpy.

The most important capability apart from my technical skill set is my affinity to solve challenging problems in collaboration with others, which is to say that I am a team player. However, when required, I have led successful research projects in the past.

Through this letter, I would like to highlight my latest experience where I worked with the Worcester Fire Department to build a fire safety solution. My team and I ended up building a novel technique approach involving a scalable mobile robot solution that evaluates fire escape safety by mapping environments with lidar through scan matching, particle filter and PCA-KMeans clustering. I believe this experience exhibits my ability to engage with stakeholders, identify problem statements, think critically and build a solve problems.

With this I submit to your fine sense of judgement to take a decision on my application.

Sincerely,
Devesh Datwani