STATEMENT OF PURPOSE
Doctorial Position – FALL 2022

JERRIN BRIGHT

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Since my pre-teen days, I have been continually stimulated by Robotics, explicitly robots that navigate autonomously. I was so besotted with exploring how these systems function and with replicating them. In the following years, I learned how important it is to innovate and understand technological gaps in the society and bridge them. I intend to bridge the technical gaps, using autonomous systems for human necessities and to improve lifestyle. With these ambitions in mind, my immediate goal is to a doctorate in the said field and pursue research that challenges and ultimately pushes my boundaries and sharpens my skills.

I have been pursuing my bachelor's degree in Mechanical Engineering since 2018, focusing on Robotics, Mechatronics, and Artificial Intelligence at Vellore Institute of Technology, India. With a zeal to learn, I joined the Robotics Club at my university in 2019 and competed in various competitions steered by my club authorities. After a year, in 2020, I started an Intelligent Vehicle and Space Exploration Team working on autonomous systems, won more than twenty awards in competitions. I, together with my team, started using the stage we created to mould and inspire budding engineers, exposing them to Robotics. The team today has more than fifty passionate engineers using it as a platform to learn robotics and automation and indulge in research and development in the said field. This team that I founded and nurtured will always be my notable achievement that I cherish.

Simultaneously, I started working with several internationally recognised universities to hone my skills, which includes McMaster University, Canada; Arizona State University, USA; Indian Institute of Science, India and Yuan-Ze University, Taiwan. I have also worked with organisations such as Aero2Astro, India, and BrainMagic, India. All the internships both industrial and research-based from the above-mentioned university are aligned to autonomous systems and perception. I have always aspired to pursue research and create new systems concentrating on Autonomy and Perception. By that notion, I have always worked honestly towards the remarkable goal of research and development and my journey has been based on it. Some of the prominent skills I gained via these research experiences include problem-solving, literature reviewability, organizing results, drafting research papers in latex, planning for sub-tasks, leveraging Scrum workflow and storing sensor data in ROS bag files to name a few.

I have also worked with several Non-Government Organizations to support the destitute and downtrodden through various welfare programs. The National Service Scheme (an Indian government-sponsored flagship for public service programme conducted by Ministry of Youth Affairs and Sports of the Government of India) I worked with had a phenomenal record of engaging in coastal clean-ups, slum clearance and orphanage upliftment by promoting various social welfare measures. Then I joined the Madras Scientific Research Foundation, and went on teaching unprivileged children Rudimentary Design and Coding. Meanwhile, I joined the Institute

of Electronics and Electrical Engineers, Robotics and Automation Student Chapter to offer technical support to the Student Chapter at my university.

From my childhood days, I was always intrigued with writing and painting. I always enjoyed transfiguring my interests and imagination into possible realities. My daily diary and art books from my school days are testament to the same. I have a record of representing my district and school in painting competitions. In 2020, I started writing blogs to aid Artificial Intelligence enthusiasts. In a span of five months, I succeeded in writing more than ten blogs. I authored my first research paper in 2020 and won the best research paper award for it. I am also involved in two more first-authored research papers based on robotics and automation.

I have always believed that learning is a lifelong process and throughout my career I have genuinely worked towards that one goal, expanding my knowledge in depth on autonomous systems and perception. With all these learning, experiences, and skills, I am now aiming to take a step closer to my life's significant mission of aiming to do research predominantly on Autonomous Systems. Accordingly, with confidence, I apply for a doctorial position for the fall of 2022 in your esteemed university under your supervision, hoping to indulge in intensive research, believing it to be an imperative step in my career in the direction of research on Autonomous Systems.