

Subject: Letter of motivation for EPFL Summer Internship Program

Respected EPFL Program Coordinator,

I am writing to express my sincere interest in the EPFL Summer Internship Program and to submit my application for consideration. My name is Aditya Jambhale, and I am currently pursuing a Bachelor's degree in Mechatronics at SRM Institute of Science and Technology, Chennai.

I am proud to maintain a CGPA of 8.41/10. As an active participant in the academic community, I serve as a member of the Next Tech Lab, the most innovative student research lab on campus. Additionally, I am a proud member of the Association of Mechatronics Engineers, an organization dedicated to organizing workshops and promoting mechatronics engineering within the community. In my role within this association, I have actively contributed to fostering knowledge exchange and creating awareness about the exciting field of mechatronics.

My diverse skill set encompasses expertise in Robotics, ROS, Python, C, C++, neural networks, deep learning, Arduino, ESP32, Raspberry Pi, Pi Pico, and OpenCV. I have successfully applied these skills in various projects, showcasing my proficiency in robotics and computer vision.

A notable project of mine is the development of a gesture-controlled robotic arm using computer vision. This project demonstrates my ability to integrate OpenCV for precise gesture recognition, showcasing a hands-on application of neural networks using mediapipe.

In the realm of autonomous systems, I designed an Exploration, Mapping, and Surveillance Rover in a ROS simulation. This project highlights my skills in navigation, mapping, and real-time decision-making, essential attributes for any cutting-edge robotic application.

I have also contributed to the Autonomous Health Assistant Robot (AHAR) in a ROS simulation environment for the Smart India Hackathon (SIH). This experience emphasized my practical knowledge of robotic systems and their simulation, resulting in winning the internal Hackathon and being selected for the National level Hackathon.

The Humanoid Robot project, currently in the development phase, serves as a testament to my commitment to pushing the boundaries of robotics and artificial intelligence. Engaging in this project, I took an innovative approach by repurposing a Robosapien toy. Through a process involving hacking into the toy and replacing its PCB with Arduino, along with enhancing other critical components such as motors, I transformed a consumer-grade product into a platform for advanced humanoid robotics. This hands-on experience has not only enriched my technical skills but has also fostered a creative problem-solving mindset, demonstrating my ability to think outside conventional boundaries in pursuing engineering solutions. I am excited to bring this ingenuity and adaptability to the EPFL Summer Internship Program, contributing to and learning from the cutting-edge research environment.

Thank you for considering my application. I look forward to the possibility of discussing how my background and skills can contribute to the success of the EPFL Summer Internship Program.

Sincerely,

Aditya Jambhale

aa7865@srmist.edu.in

9867263595