Mahir Pokar

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Motivated Robotics and Mechatronics Engineer with hands-on experience in developing embedded systems, battery management systems, and robotic solutions. Skilled in Python, C++, and C, with expertise in battery monitoring, reinforcement learning, and multi-agent systems. Proven track record of working in multidisciplinary teams, managing projects, and delivering innovative solutions. Seeking opportunities to leverage my technical skills and passion for engineering in developing cutting-edge solutions.

EDUCATION

2024-2025   **The University of Manchester
MSc Robotics Engineering**

- Currently pursuing a master's program focusing on **advanced robotics systems**, including autonomous systems, machine learning, and artificial intelligence.
- **Leading my team project**, building a **search and retrieve rover**, using **ROS 2**. Getting first-hand experience with machine learning, control, computer vision and industrial robot kinematics.

2021-2024   **The University of Manchester
BEng (Hons) Mechatronic Engineering
First class (79 %)**

- Treated my degree as a project, and applied project management techniques to achieve academic success while balancing extracurriculars.
- **78% in my third-year reinforcement learning project** - simulated a multi-agent system and demonstrated the effectivity of Q-learning. Turned theoretical techniques into code for simulation. Demonstrating fast independent learning.
- Excellent Programming skills in **Python and C++.**
- Keen interest in **Advanced control systems** and algorithms.
- In-depth knowledge of **electronic circuits** from first principles.
- Demonstrated communication skills, by making video presentations.

**2018-2021 Dr D. Y. Patil School of Business and Computer Science (India)
BCom Accounting**

- **Placed 49** in all of India in the Chartered Accountancy Foundation examination 2018.
- Although I transitioned to engineering, my accounting background has provided a unique perspective on the financial and business implications of engineering projects, particularly in managing budgets and understanding the financial impacts of technical decisions.

A-Levels (India): Maths (95%), Physics (91%), Chemistry (68%)

WORK EXPERIENCE

09/23 - Present **Formula Student Society – Electric Vehicle Team**
 Battery Management System Engineer

- Developed a **Battery Management System (BMS)** for the Formula Student electric vehicle using pre-production Analog Devices chips provided by Tesla.
- Understood the operation of the ICs solely using the data sheet within a week.
- Programmed the BMS with **STM Cube IDE and Keil Studio in C**, enabling real-time cell voltage measurements of **720 cells** and overall battery pack monitoring.
- Worked in a small technical team, while collaborating with the broader Formula Student team to ensure the **rule compliance and adherence to deadlines**.

12/21 – 3/22 **Pitmaster**
 Customer Service

- Maintained high standards of customer service during high-volume, fast-paced operations.Communicated clearly and positively with co-workers and management.

06/20 – 03/21 **CA Mutha and Lahoti**
 Article
- Performed in a very professional environment with minimal margin for error.
- Adhered to strict deadlines.
- Kept up to date with the dynamic tax laws.

INTERESTS AND ACTIVITIES

- University of Manchester Robotics Society.
  - Built an Arduino uno-based self-navigating buggy with proximity sensors. Demonstrating skill in C++ and control algorithms.

POSITIONS OF RESPONSIBILITY

09/2021 - **Department of Electrical and Electronic Engineering**
 Student Representative

- Professionally coordinated with the cohort and staff to make positive changes.

Languages: Fluent in English, Hindi and Gujarati.