

# ROBOTICS AND AUTOMATION ENGINEER

## Shakir Eqbal

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### Summary

Passionate Robotics and Automation Engineer with expertise in IoT solutions, automation processes, and real-time analytics. Proven track record in optimizing systems and implementing innovative technologies in industrial settings. SAE Convention 2021 winner (Level 1) and recipient of a scholarship in college.

### Skills

**Programming Skills:** C++, Python, Arduino IDE, STM IDE, LoRa module, ESP32 module

**Technical Skills:** Internet of Things, PCB Design, Sheet Fabrication, Industrial Automation

**Cloud Tools:** ThingSpeak, AWS IoT Core, Blynk IoT

### Experience

<b>Associate Engineer, Forbes Marshall Pvt. Ltd.</b>	08/2023 - 10/2024
<ul style="list-style-type: none"><li>Developed a material shelf life indicator using ESP32C3 and LoRa modules, achieving a 200m range, which significantly improved inventory management and reduced material waste.</li><li>Streamlined the Kanban system from a 2-bin to a 1-bin setup using load sensors and Raspberry Pi, reducing space requirements by 30% and implementing cloud-based inventory alerts that enhanced real-time stock monitoring and replenishment.</li><li>Conducted comprehensive benchmarking to improve efficiency in steel industry processes, focusing on reducing steam and acid consumption, which led to more sustainable operations and cost savings for clients.</li></ul>	
<b>Sales Intern, Jendemark India Pvt. Ltd.</b>	04/2023 - 05/2023
<ul style="list-style-type: none"><li>Programmed robotic systems for EV battery production and welding collaborative robots as a Dobot Programmer, optimizing operational efficiency and production accuracy.</li><li>Conducted in-depth market research, supported sales presentations, and maintained CRM systems, providing valuable insights into sales operations and market trends that informed strategic decision-making and boosted sales performance.</li></ul>	
<b>R&amp;D Intern, PiGreen Innovations Pvt. Ltd.</b>	12/2022 - 03/2023
<ul style="list-style-type: none"><li>Designed and built an on-board diagnostics control panel for electrostatic precipitators, managing inputs from start-up to 8 KV high-voltage output. Successfully transitioned from Atmega328p to ESP32, and developed a remote control panel using STM32, significantly enhancing system reliability and remote operability.</li><li>Played a key role in developing a scrubber for boilers, gaining extensive knowledge in material science and steel fabrication, and contributing to the creation of more efficient and durable industrial solutions.</li></ul>	

### Education

<b>MIT World Peace University</b>	Pune, MH, India
Bachelor of Technology, Robotics and Automation Engineering.	CGPA: 9.28 / 10
<b>Delhi Model Public School</b>	Kulharia, BR, India
Senior Year, PCM	Percentage: 71.2/100
<b>Jean Paul's Senior Secondary School</b>	Ara, BR, India
Secondary Education.	CGPA: 10/10

## Projects

<b>Design and Development of Exoskeleton, <a href="#">Link</a></b>	07/2022 - 11/2022
<ul style="list-style-type: none"><li>Designed and developed an exoskeleton to assist in hill climbing for defense applications, enhancing mobility and endurance. Utilized EMG muscle sensors, solenoid valves, pneumatic cylinders, and custom-machined parts.</li><li>Outcomes: Improved climbing efficiency and reduced fatigue, with potential for further adaptation in defense applications.</li></ul>	
<b>GPS Wristband</b>	10/2021 - 06/2022
<ul style="list-style-type: none"><li>Created a GPS wristband using ESP32 and SIM800 GSM modules to track children and the elderly, providing real-time location updates to a cloud server.</li><li>Integrated an alarm system that activates when the wearer moves beyond a 100-meter radius.</li></ul>	

## Certifications

<b>NPTEL, <a href="#">Link</a></b>	04/2021
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**Aggregate: 66 / 100**

**Subjects:** Introduction to Robotics

Introduction to Robotics is a course developed and taught by an IIT professor on the NPTEL platform and the last assessment examination is conducted through the ion digital centres.

<b>AWS IoT, <a href="#">Link</a></b>	04/2021
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**Aggregate: 95 / 100**

**Subjects:** OTP-AWSD5

Specialized in developing and deploying IoT solutions using AWS IoT Core.

Focused on device management, data ingestion, real-time analytics, and secure IoT architectures.

Utilized AWS services such as AWS Lambda, AWS IoT Analytics, and AWS IoT Greengrass.

<b>Machine Learning with Python, <a href="#">Link</a></b>	07/2023
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**Cognitive.ai: IBM Developer Skill Network**

Mastered machine learning concepts and techniques using Python.

Explored supervised and unsupervised learning, model evaluation, and algorithm selection.

Applied practical skills through hands-on projects solving real-world problems.

## Leadership & Activities

<b>Co-Curricular Activities</b>	07/2019 - 06/2022
<ul style="list-style-type: none"><li>Society of Automation Engineering organizer</li><li>Hosting technical events</li><li>Street play and Open mic</li><li>Student coordinator for placement cell</li></ul>	