# **AZEEM AHAMED B**

## Al and STEM Solution Engineer

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#### **SUMMARY**

Dedicated and results-oriented Electronics and Communication Engineer with a strong focus on Cloud Computing, IoT, and Python development. IBM-certified in *Python for Data Science*, with hands-on expertise in IoT-based automation and real-time data processing. Passionate about leveraging cloud technologies(AWS) to design scalable, secure, and efficient solutions. Skilled in developing and deploying innovative projects that integrate IoT, AI, and Python, fostering seamless connectivity and automation.

## **CORE COMPETENCIES**

- Cloud Expertise: Proficient in AWS services and Linux command-line operations.
- **IoT Innovation:** Advanced skills in developing IoT-enabled devices and automation systems.
- Programming Proficiency: Strong foundation in Python with experience in frameworks like TensorFlow and OpenCV.
- Al Integration: Expertise in real-time data analysis and Al model development for IoT systems.
- System Design: Skilled in developing scalable and secure cloud-based architectures.
- **Education and Mentorship**: Experienced in conducting hands-on workshops on IoT and Python.

### **Education**

• B.E. - Electronics and Communication Engineering (ECE)

AVC College of Engineering (2018 - 2022)

CGPA: 8.15

• 12th Standard (Higher Secondary)

Raj Matriculation Higher Secondary School (2017 - 2018)

Marks Scored: 1016/1200 (84.67%)

• 10th Standard (Secondary)

Raj Matriculation Higher Secondary School (2015 - 2016)

Marks Scored: 446/500 (89.2%)

#### PROFESSIONAL EXPERIENCE

- Developed and implemented 10+ Al and ML projects, including predictive modeling and real-time object detection.
- Created 5 Al-enabled DIY STEM kits, focusing on robotics and IoT applications for students aged 10–14.
- Organized and led 50+ hands-on workshops, training over 500 students in Python-based AI tools and frameworks.
- Mentored students to develop 20+ innovative projects, including smart health monitoring systems and automated robotics.
- Conducted 3 specialized workshops for Polytechnic students in Robotics (D.Mech), IoT (DEEE), and Embedded Systems (ECE).
- Managed the STEM lab inventory, supporting smooth execution of educational programs.

#### Automated Optical Inspector | Coramandel Electronics

April 2022 – January 2023

- Utilized AOI machines to inspect over 40,000 PCBs across 20+ model types, ensuring precise component placement and quality compliance.
- Performed rework and repair on more than 200 PCB boards, improving operational efficiency and product quality.

#### **CERTIFICATIONS**

• Python for Data Science and Al Development – IBM Certification

#### **KEY PROJECTS**

- Al-Powered Home Automation with Alexa: Developed an IoT-based smart home system integrating voice command functionality.
- **Smart Health Monitoring System:** Designed an Al-enabled device to analyze real-time health metrics and predict anomalies.
- **Object Detection and Tracking System:** Created a Python-based real-time object detection model using TensorFlow and OpenCV.
- **Dancing Hand-Bot:** Programmed a robotic arm with Al-driven gesture recognition, responsive to human hand movements.
- Al-Powered Attendance System: Built a facial recognition system for automated attendance tracking in academic settings.
- **Sentiment Analysis Chatbot**: Developed an AI chatbot capable of emotion recognition and interactive responses..

#### ACHIEVEMENTS IN STEM EDUCATION

- Conducted over 50 workshops, training more than 500 students in robotics, AI, and IoT.
- Successfully analyzed and distributed over 1,000 Al and STEM DIY kits.
- Increased STEM program enrollment by 30% in partner schools through innovative and engaging teaching methods.

## **PERSONAL SKILLS**

I possess strong analytical and problem-solving skills, coupled with excellent communication and leadership abilities. My passion for teaching and mentoring drives me to inspire others in the field of robotics and AI. As a creative thinker with practical experience in these domains, I am committed to fostering innovation through collaboration and proactive involvement.

#### **BOOKS**

I have a deep interest in continuous learning and personal growth. One of the books that has greatly influenced my perspective is the Quran, which I read regularly to gain insights and guidance.

#### **HOBBIES**

I am passionate about researching the latest technological advancements and enjoy practicing coding on platforms like HackerRank to enhance my programming skills.