BURHAN SHOWKAT

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- https://burhan80.github.io/Portfolio-Website-main/

Objective

An enthusiastic and dynamic engineer with experience in PCB designing, networking, circuit design, and 3D modelling. I am eager to take on a demanding position in a forward-thinking organisation where I can use my technical knowledge and problem-solving abilities to propel the development of cutting-edge systems. I am determined to advance my understanding of electronics and network engineering while assisting in the growth of the organisation.

Experience

Research Assistant

July 2024 – Present

Department of Mechanical Engineering, Islamic University of Science and Technology

- Working on the development of a "low-cost haptic feedback-enabled robotic system to teach STEM concepts".
- Responsible for system design, integration, and testing to create an interactive and costeffective teaching platform
- Delivered lectures to university students in courses such as Mechatronics and Control Systems
 Engineering, fostering a deeper understanding of core concepts.
- Assisted mechanical engineering students in a project titled "Mechatronic Design & Fabrication
 of Mars Rover", guiding them in design and implementation.
 - The project earned the Best Prototype Award at the university-level tech exhibition 2024.
- Collaborating with interdisciplinary teams to incorporate innovative solutions for enhancing hands-on learning experiences.
- Conducting research to ensure the interface meets academic and pedagogical requirements.
- I am also responsible for creating models and prototypes for this project using solidworks and 3D print them.

Atfaal Innovations Pvt Ltd Jammu & Kashmir, India

- O Spearheaded the development of unique embedded system projects, applied expertise in electronics and coding to deliver tailored solutions for clients.
- O I was actively involved in designing and printing intricate 3D models, utilized solidworks and 3D printers to bring concepts to fruition with precision and efficiency.
- Played an integral role in organizing and facilitating workshops om 3D modeling, 3D printing,
 Robotics, Electronics, and Coding for school and college going students, ensuring smooth logistics and engaging learning experiences.
- O Provided mentorship and instructions during workshops, guided students through hands-on activities and fostered their interest in technology fields.
- O Managed multiple projects concurrently, from inception to completion.
- O Pursuing opportunities for professional growth and stayed abreast of emerging technologies and industry trends to enhance project methodologies and practices.
- O Collaborated closely with colleagues to exchange ideas, share expertise, and brainstorm innovative solutions, fostered a culture of collaboration and collective success within the organization.

• **Trainee** Jan 2022-Feb 2022

Transmission line Maintenance division Pampore.

- Assisted in monitoring the power grid operations and analyzing grid performance data to identify potential issues and anomalies.
- Conducted research and analysis on emerging technologies and industry best practices related to power grid management, contributing insights to improve grid efficiency and reliability.
- Engaged in observational learning opportunities, shadowing experienced engineers and technicians
 to gain firsthand insights into power grid operations and maintenance practices.
 Accompanied experienced engineers on visits to switch yard, gaining exposure to various
 components like transformers, circuit breakers, capacitor banks, current transformers, potential
 transformers, control panels, bus bars etc.

Part Time

Guest Faculty

Directorate of Samagra Shiksha, Jammu & Kashmir – Vocational Education

- Delivering vocational training sessions to impart practical and industry-relevant skills to students.
- Organizing interactive lectures and hands-on workshops to bridge the gap between theoretical knowledge and practical applications.
- Encouraging students to pursue skill-based learning and guiding them in exploring career opportunities in various technical fields.

Education

• B-Tech in Electronics and Communication Engineering

• **HSE** 2018

Govt. Higher Secondary School Ladhoo, J&K, India

• SSC 2016

Govt. Higher Secondary School Ladhoo, J&K, India

Projects

Computer vision-based fruit sorting and grading system

Designed a machine that can grade and sort fruits and dry fruits. The fruit, that is flawed/rotten can be removed, and the remaining fruits can then be graded based on size. Through an easy-to-use Human Machine Interface, the entire system becomes fully automatic with little initial user input.

Extended loop recorder (ELR)

ELR is a device that takes ECG for much longer period than a normal Holter. Our Design enabled to take the ECG continuously without ever stopping the acquisition for recharging or when internet connectivity is disrupted. It uses dual battery swappable system designed in KiCad and Node Red as server.

• Bluetooth & Wi-Fi based home automation

Controlling various home appliances remotely with just a click on mobile phone.

Motor control for water tanks using level detection

A home automation system, that controls water pumps attached to water tanks. It uses a level detection algorithm to precisely control actuators. The motor automatically shuts off when the water in the tank reaches the overflow level and automatically restarts when the tank is empty.

ACHIEVEMENTS

• Best Project - TechExpo Winner

Awarded the Best Project at the TechExpo during the final year of my BTech program.

Demonstrated exceptional skills in computer vision, coding, electronics. Designed and executed a project titled as "A computer vision-based fruit grading & sorting system", that garnered recognition from a panel of experts Successfully. In this project, I was mainly concerned about designing various parts for project using solidworks and then 3D print them.

Skills

- SolidWorks
- 3D designing
- PCB Designing
- CCNA
- o Routing protocols- Rip (V1& V2), EIGRP, OSPF etc.
- Basic IOS security.
- o Router as firewall, DHCP server, NTP server etc.
- Translations.
- Subnetting.
- O VLANs.
- Switches.
- VLSI
- Embedded Systems

- Xilinx Ise
- MATLAB
- Networking
- Adaptability
- Leadership
- Critical Thinking

Interests

- Cycling
- Trekking
- Cricket

Languages

- English
- Urdu
- Kashmiri
- Hindi

Personal Details

Date of Birth :- 18/03/2002
 Marital Status :- Single
 Nationality :- Indian
 Gender :- Male

Declaration

I declare that the information provided in this resume is true and accurate to the best of my knowledge.