

SUMMARY

I am actively seeking a role in mechatronics/robotics (Electronics oriented) systems to gain further practical experience and industrial exposure in the field. My passion for tackling global challenges and dedication to professional growth drive my career aspirations.

EDUCATION

Degree	Institute	Board / University	CGPA/Percentage	Year
B.Tech ECE	Sharda School of Engg. & Tech.	Sharda University	7.83	2018-2022
Senior Secondary	Ishan International Public School	CBSE	74.40%	2017
Matriculation	Ishan International Public School	CBSE	87.40%	2015

EXPERIENCE

- **Orangewood Labs**

Electronics Engineer

May 2023 - Present

San Francisco, CA 94123, USA · Remote

– Successfully designed, tested and implemented circuitry to resolve back EMF issues in current robots, effectively resolving a major challenge in power electronics.

– Developing multi layer STM32-based PCBs for various electronics subassemblies, with expertise in working with hardware interface for protocols such as GPS, Wi-Fi, Bluetooth, LoRA, SPI, I2C, UART, USB, RS 232, and RS 485.
- **Triassic Aerospace**

Mechatronics engineer

Nov. 2022 - March 2023

AIC IIT Delhi · On-site

– I oversee drone fabrication, prototyping, and electrical testing for optimal performance and quality control.

TECHNICAL SKILLS

- **Circuit design, Layout & Prototyping Softwares:** KiCAD, ExpressPCB, Altium Circuitmaker

P.C.B. Prototype fabrication, Circuit debugging, D.S.O. Operation, Soldering (THT & SMD) components, P.C.B.A. Operation
- **3D Integration Softwares:** Solidworks, Fusion360, AutoCAD, Autodesk Meshmixer, 3D Slicer
- **Programming Tools:** Python, C, Arduino
- **Operating Systems:** Windows, Linux
- **Hardware tools & Machining operations:** 3D Printing (F.D.M.), Laser cutting & engraving operations, Part fabrication(Lathe Operation, Welding ,Drilling & Milling)

ACADEMIC PROJECTS

- **Upper Limb Exo-suit for Motion Amplification and Medical Rehabilitation**

Guide: Asst. Prof.- Dr. Usha Tiwari, Sharda University

Jan 2022 - May 2022

Youtube

– The objective of this project is to create an electromechanical system that augments upper limb mobility, with dual purposes of aiding industrial applications and serving as a tool for medical rehabilitation.
- **Low-Cost B.L.D.C. Actuator Fabrication using 3D Printing**

Guide: Asst. Prof.- Dr. Shailendra Tripathi & Dr. Usha Tiwari

Jan 2021 - Jan 2022

Youtube

– Created an affordable, adaptable robotic joint actuator, including a key element of testing the reliability and feasibility of 3D-printed planetary gearboxes in high-speed maneuvers.

FIELD OF INTEREST

My areas of interest include 3D modeling, brushless actuator systems, mechatronics, quadrupedal legged robotics, mobile robotics, biomedical assistive devices, Robot Operating System (R.O.S.), manipulator arms, electric vehicles, reverse engineering, research and development, and embedded systems design.

CERTIFICATIONS

- **Introduction to Biomedical Engineering** Coursera

• **Understanding Research Methods** Coursera

• **Generative Design for Part Consolidation** Coursera

ACHIEVEMENTS/AWARDS

- Granted Design patent of **Brushless D.C. Motor** published in Indian Patent Journal (April 2023).

• Awarded Chancellor’s gold medal for **Best Student Innovator** of Sharda University. (Oct. 2022).

• Granted Design patent of **Brush-less D.C. Motor Actuator** published in Indian Patent Journal (May 2022).

MISCELLANEOUS

**Hobbies:** Cooking, D.I.Y. Projects, Reading.

**Languages:** English, Hindi.