Saksham Gupta

+91 9711976310 | sakshamgupta2004@gmail.com | sugarsnooper.com |

linkedin.com/in/sakshamgupta2004

Summary

*Electrical & Computer Engineering student with hands-on experience in **BMS, Power Converters, and STM32 embedded systems**. Strong in project leadership, cross-functional teamwork, and designing solutions showcased in international competitions.*

Skills

- **Electrical Systems:** *BMS, Inverter, Switchgear, Harnessing*
- **PCB & Circuit Design:** *KiCad, Altium, Eagle (2+ yrs)*
- **Embedded Systems:** *ESP32, Raspberry PI Pico, STM32, Arduino, Raspberry Pi*
- **Hardware Expertise:** *Micro/HV soldering, Power Systems, HVAC Systems*
- **Software Expertise:** *AutoCAD, COMSOL, Java, C/C++, Python, PHP, MySQL*

Experience

Delta Zero
Electronics Design Engineer NOV, 24 - JAN, 25

- *Designed and developed the electronic control hardware for a custom 3D printer system*
- *Prototyped, assembled, and tested the electronics to validate system performance*

Team Vegapod Hyperloop | EHW'24
Electrical Head AUG, 23 - JUL, 24

- *Designed a Custom Scalable Battery Pack including a BMS reducing the cost by 50%.*
- *Designed a Levitation Controller for powering the EMS Units and **successfully achieved 1DoF Levitation**.*
- *Represented Team Vegapod Hyperloop at the European Hyperloop Week competition in **Zürich, Switzerland**.*

Team Vegapod Hyperloop | EHW'23
Electrical Engineer AUG, 22 - JUL, 23

- *Developed a **3-phase SPWM inverter** to power a custom Linear Induction Motor.*
- *Assembled and tested a complete power system, ensuring functionality and reliability.*
- *Represented Team Vegapod Hyperloop at the European Hyperloop Week competition in **Scotland**.*

Education

- **B.Tech in Electrical & Computer Engineering** – *MIT WPU | GPA: 7.13 (Aug 2022 – July 2026)*
- **Class 12 (CBSE)** – *Rukmini Devi Public School, New Delhi | 90% (2022)*
- **Class 10 (CBSE)** – *Rukmini Devi Public School, New Delhi | 88% (2020)*

Hardware Projects

- **3 Phase Inverter**
  - *Developed a SPWM inverter using IGBTs for induction motor control. Controlled using a dedicated VCU with CAN protocol.*

- **Power Electronic Constant Current Controller**
  - *Developed a Constant Current Controller for Powering Inductive Loads with set value received using UART.*

- **Scalable Battery Module**
  - *Designed a modular li-po battery pack with BMS integration for High Voltage Systems in EVs.*

- **2 Degree of Freedom; Pick and Place Robot**
  - *Designed a Pick and Place robot with an Electromagnetic Gripper and Live Visualization and Control on an ElectronJs Application with serial communication.*

- **Quadcopter (MultiWii)**
  - *Built a quadcopter with the MultiWii firmware running on an Arduino and a custom wireless transceiver utilising NRF24L01 modules.*

Software Projects

- **File Sharing Application:** *Android Native (Java) and WPF (C#)*
- **Multi-Threaded Downloader:** *Built using JS*
- **Automatic Backup Application:** *Built using C# (WPF Application)*
- **Password Manager Application:** *Android Native, NextJS*