

## EDUCATION

**Master of Science, Electrical and Computer Engineering, UT Austin** August 2022 — Present  
**Bachelor of Tech. (Honors), Electrical Engineering, Minor in CS, IIT Kharagpur, (GPA: 8.76/10.00)** July 2016 — July 2020

## INDUSTRY EXPERIENCE

**Power Electronics Engineer** Sept 2020 — August 2022  
Jaguar Land Rover Bengaluru, India

- Simulated 11kW and 22kW on-board charger circuits including loss and thermal modelling.
- Closely collaborated with teams in UK to deliver major topologies including totempole PFC and resonant CLLC ensuring ZVS and ZCS.
- Worked on several research and development projects in the field of power electronics, computer vision and deep learning.

**Operations Research Intern** May 2019 — July 2019  
ITC Limited Mysuru, India

- Developed a comprehensive model for “Mushroom Cultivation in Tobacco Barn” for generating an affordable income for the tobacco farmers in rural areas. Established a business opportunity that could be beneficial for the company, farmers and society at large.

### Startup Experience

**Chief Power Electronics Engineer, Webber Electrocorp, Founders: Mr. Manuj and Mr. Shyama Agrawal** Sept 2019 — Mar 2020  
IIT Kharagpur, India

**PCB Designer, Skytex, Founder: Mr. Mohit Gupta, Supervisor: Dr. Subrahmanyam Saderla** Dec 2018 — Jan 2019  
IIT Kanpur, India

**Associate Embedded Engineer, Alive Home, Founder: Ms. Poonam Gupta** Aug 2017 — Jan 2018  
IIT Kharagpur, India

## RESEARCH PROJECTS

**Defended B. Tech thesis titled “Charger Design for light EVs”, Dept of EE, IIT Kharagpur** July 2019 — Mar 2020  
Supervisor: Dr. Dipankar Debnath keshariS/charger4LightEVs

- Designed an efficient AC charger for light electric vehicles using interleaved boost PFC followed by PSFB topology.
- Designed additional auxiliary power supplies using the flyback and buck converters, fabricated and tested the hardware.

**Power Electronics Team Head, Electric Vehicle Group, IIT Kharagpur** Oct 2017 — Mar 2020  
Supervisor: Dr. Vikranth Racherla Official Vehicle Launch Story

- Designed modular power and driver boards for implementing 400W and 1kW BLDC motor controllers, and 3kW charger
- Mentored juniors about the prototypes and helped launch the startup Webber Electrocorp in Sept. 2019

**Computer Vision Intern, Rekhi Centre, IIT Kharagpur** Jan 2020 — Sept 2020  
Supervisor: Dr. Manas K Mandal, Dr. Priyadarshi Patnaik

- Designed an algorithm for measuring facial asymmetry and emotion incongruity using Convolutional Neural Networks.
- Enhanced accuracy of Facial emotion recognition model from 70% to 87% using custom dataset and Amazon Web Services

## TECHNICAL SKILLS

**Coursera Specializations** Power Electronics Sp. (U. Colorado Boulder) || Deep Learning Sp. || Self Driving Cars Sp. (U. Toronto)  
**Software Skills** MATLAB, PSIM, Kinetis Studio, Altium Designer, LTSpice, Arduino, Solidworks, LabVIEW  
**Programming** C, C++, Python (opencv, keras, tkinter GUI)

## AWARDS & HONORS

2020 Systems Society Award ( **Best B. Tech Thesis among Electrical, Energy and Instrumentation Engineering departments** )  
2019 Silver Trophy ( **Inter IIT Tech Meet 8.0, IIT Roorkee** )

## LEADERSHIP & COMMUNITY OUTREACH

**Astroclub Sub-Head, Space Technology Student's Society, IIT Kharagpur** Jan 2017 — Oct 2017

- Chief editor for MOONWALK (Official Newsletter) and Manager of STAC (Space Technology Awareness Camp) in Eastern India
- Organized a nationwide event National students space challenge that witnessed participation from over 100 universities across India

**Social work in rural Kharagpur, National Service Scheme** July 2016 — Dec 2017  
Kharagpur

- Taught young primary school students and built a road for the rural village of Talbagicha