

## EDUCATION

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

## RESEARCH AND INDUSTRY EXPERIENCE

**Graduate Research Assistant: Computer Vision/NLP** Nov 2022 — Present  
Advisors: Dr. Dhiraj Murthy, Dr. Anna Wilkinson (UT Austin) Austin, Texas

- Currently developing Vision-based computational models/pipelines to identify mechanisms underlying electronic nicotine delivery system (ENDS)-related social media exposure and ENDS use among young adults
- Investigating social media data using Oracle Cloud (scraping), and deploying custom Yolo and BERT models (inference) to explore multi-modal ML techniques [Paper Presentation: SRNT, San Antonio]
- Supervising undergraduate research assistants working on this project as part of the [Computational Media Lab](#)

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

- Investigated Computer Vision R&D projects like driving assist technology and fault prediction for validation
- Filed a patent (under review) for electric vehicle charging hardware and software

**Undergraduate Research Assistant: Computer Vision** Jan 2020 — Sept 2020  
Supervisors: Dr. Manas K Mandal, Dr. Priyadarshi Patnaik (Rekhi Centre, IIT Kharagpur) keshariS/EmotionAnalysis

- Designed an algorithm for measuring facial asymmetry and emotion incongruity from real time videos using CNNs.
- Developed an application using tkinter GUI library for a user-friendly interaction with the software.
- Enhanced accuracy of Facial emotion recognition model from 70% to 87% using custom datasets and AWS

**Bachelors dissertation: Charger Design for light Electric Vehicles** July 2019 — Mar 2020  
Supervisor: Dr. Dipankar Debnath (Dept of EE, IIT Kharagpur) keshariS/charger4LightEVs

**EV Research Group Lead** Oct 2017 — Mar 2020  
Supervisor: Dr. Vikranth Racherla (CRR, IIT Kharagpur) < Official Vehicle Launch Story >

- Designed modular power and driver boards for implementing a BLDC motor controller and a charger
- Mentored sophomores/juniors about the prototypes and helped launch the startup [Webber Electrocorp](#) in Sept. 2019

## TECHNICAL SKILLS

**Programming** C/C++, python (opencv, keras, tkinter GUI), OCI, AWS, Git, HTML, CSS  
**Software** [CARLA Simulator](#), Jupyter, PyTorch, VS Code, MATLAB, ROS, PSIM, Cadence

## RELEVANT COURSEWORK

**Graduate** Advanced Computer Vision, Autonomous & Connected EVs  
**Coursera Specializations** Self Driving Cars (University of Toronto) || [Deep Learning](#) || [Machine Learning](#) (Stanford)  
**Undergraduate** Advanced Image Processing, Machine Learning, Data Structures & Algorithms

## AWARDS & HONORS

**2020** Systems Society Award ( **Best Bachelors dissertation among 3 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 Space Technology Awareness Camp in Eastern India
- Organized a nationwide event 'National students space challenge' for students from over 100 universities across India

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

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