PROFFESSIONAL EXPERIENCE

- **Edelweiss Securities Limited** ∣ Trading Technology Team *(May'18-July'18)*
  - Designed UX and UI for easy access to Transaction Cost Analysis(TCA) report to help traders get actionable insights to enhance and synchronize trading related execution quality, compliance and management
  - Implemented login authorization and dynamic forms to query single day and multiple day TCA reports based on date, account ID, portfolio and instrument with download link to summary file on Django framework
  - Created infrastructure for logging errors, warnings and regular django server information

RESEARCH EXPERIENCE AND SURVEY

- **Degradation rate determination of solar plant** ∣ Masters' Thesis *(May'19-Present)*
  - Aimimg to use data science to perform predicitve analysis of reliability of solar modules
  - Creating models for solar cells to determine the dependency of degradation rate on various parameters
  - Implemented five parameters single diode model for solar cell by using module datasheet values on python
  - Used Bokeh server to plot the I-V curve interactively with sliders for all five parameters
- **PV Module Field survey in Leh** ∣ NCPRE, IIT Bombay *(Jan'19-May'19)*
  - Collaborated with 2 others in survey of 7 days to inspect solar plant installations and performance degradation
  - Surveyed 88 modules at 3 sites in Laddakh region and carried out module and string level I-V characterization, IR thermography for hotspot detection and visual imaging to capture cracks and pyhsical damages of the cells
  - Calculated average performance degradation rate per year to be 1.42%, 3.32% and 3.97% using MATLAB

MAJOR PROJECTS

- **Solar module mounting orientation** ∣ Course: Design and eval. of PV power plants *(Mar'19-May'19)*
  - Determined the best possible orientation of solar panel for maximum power output in different regions.
  - Performed parametric analysis on System Advisor Model software by varying tilt and azimuthal angle
  - Concluded that optimal tilt angle is latitude angle and optimal azimuth is 180 in north and 0 in south
- **Portable Solar cum Vibration Energy Harvesting Phone Charger** ∣ Design Lab *(Jan'18-May'18)*
  - Designed a suitable AC-DC converter for EMI voltage, and a **Boost converter** for solar cell circuit output
  - Prototyped and tested a working model with optimized size and performance
- **Power Amplifier design** ∣ Course: Solid State Microwave devices *(Mar'19-May'19)*
  - Simulated a 2 stage power amplifier with matching & bias-T circuits with unilateral design approach in ADS
  - Designed, fabricated & tested the PCB using Vector Network Analyzer for gain and bandwidth specifications
- **Maze Solver** ∣ Summer School of Code, WnCC IIT Bombay *(July'18-Nov'18)*
  - Implemented command line Image Processing Project on Python platform assisted by OpenCV library
  - Used thresholding, filters, contour extraction, and thinning (one pixel width) to get a path from start to end.

POSITIONS OF RESPONSIBILITY

- **Campaigning Coordinator** ∣ Abhuydaya, Social Body IIT Bombay *(Apr'19-Apr'18)*
  - Led volunteer weekends at various schools for the underprivileged with a unified motive of circulating general awareness, computer basics and career counselling, with a team of 20-22 members
  - Headed a 23 member volunteer team to HUMARA BACHPAN (National level initiative for children enforcement) in Bhajiwali slums, with a purpose of realizing the harsh situations of kids
  - Co-ordinated and volunteered ANTARCHAKSHU, St. Xavier's XRCVC's initiative to demand from the government and people equal accessibility to science education for visually challenged people
- **Teaching Assistant** ∣ Course: Reliability and Failure Analysis *(Jul'19-Present)*
  - Developed online portal for 40+ students to access personalized random failure data for their course project
  - Generated artificial random data for normal, weibull, lognormal and expo. distributions with varying parameters

EXTRA CURRICULAR ACTIVITIES

- Secured **third position** in Hostel Chess General Championship *('17-'18)*
- Bestowed with a Black belt (1st Dan) in Shotokan style Karate after regular training of 4 years *[2009]*
- Member of Gold medal recieving squad in Badminton General Championship among 12 hostels *[2018]*
- Awarded silver medal in the Street Play competition, Freshiezza (Freshmen cultural competitions) *[2015]*
- Pursuing 50 hours official German language course provided by International Relation Cell, IIT Bombay *[2019]*

Hobbies

Badminton ∣Trekking ∣ Travelling ∣ Cooking