



Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018 - Present	B.Tech	Indian Institute of Technology, Kharagpur	8.62/10
2018	HSC (XII)	Chaitanya's International School, Pune	86.7%
2016	CBSE (X)	Vidya Pratishthan's English Medium School, Pune	9.8/10

Scholastic Achievements

- Secured **All India Rank 5511** in **JEE Advanced 2018** among the 2.6 lakh shortlisted candidates
- Among the **top 0.3%** of the 1.5 million applicants in JEE Mains 2018
- Awarded with **Department Swap** for being in the **top 10%** at Indian Institute of Technology, Kharagpur

Projects

- **Designing and Prototyping Autonomous Ground Vehicle:** **Prof. Debashish Chakravarty**
[March'19-June 19]
 - **Finished 2nd** in Intelligent Ground Vehicle Competition 2019 (**IGVC**) conducted at Oakland University in Rochester, Michigan.
 - Awarded as Best Cost Efficient design amongst **150+** participation from **7 different countries**.
 - Designed and prototyped a new vehicle outframe ready to be equipped with other expensive and delicate electronic elements.
 - Analyzed and reiterated design in order to minimize the vibrations, increasing the stability of the position-sensitive sensors like LiDAR.
 - Simulated the model in **ANSYS** software exposing the model to various kinds of forces in order to make suitable changes in design.
 - Tested & implemented Kalman filter and Extended Kalman filter in IGVC bot controls using **Robot Operating System (ROS)**.
- **IEEE Workshop of Computer Vision:** [Nov'18-Dec 18]
 - Implemented **Hough transform** to detect the number of edges in the field of view to determine the orientation of the robot.
 - Detected the blinking frequency of LEDs at junctions using OpenCV libraries to determine the direction of traversal.
 - Prototyped an autonomous bot capable of crossing a virtual mine field using **Greedy Algorithm** with the help of barcode scanning.
- **AIESEC Digital Video Editor, Egypt:** [June'19-July 19]
 - Worked on increasing Egypt tourism via **content creating and publishing**.
 - Deployed new innovative ideas, effects and worked on storylines to be used in videos and vlogs being published.
 - Managed to work on crowded sites to shoot new videos and pictures with a team of 5 people.
 - Awarded as a **Best Short** movie for the Dahab site with best story line up.

Competitions and Workshops

- **Zenith Event, Kshitij 2019** [Jan'19]
 - **Finished 3rd** amongst **57 teams** participated from all over India in **KSHITIJ 2019**, technical fest of IIT Kharagpur.
 - Designed and prototyped **manual robot** which can cross gaps and can change its height as per the requirement.
 - Intensively worked on SolidWorks to modify the designs of the prototype model following a trial and error approach.
- **Open IIT Case Study Competition** [Nov'19]
 - **Finished 5th** in Open IIT Case study competition on the case of Softbank Vision Fund held at IIT Kharagpur.
 - Performed an intensive **SWOT analysis** by tracing the investments, funds, assets, deals and many other minute aspects of the case in order to predict future consequences and success for the decisions made by Vision Fund.
 - Further analyzing the **Vision Fund II** and its impact on some blooming fields like AI, Big Data, etc
- **Technology General Championship Data Analytics Competition** [Jan'20]
 - Developed **Time-Series Forecasting models** to predict and optimize electricity consumption in companies and other buildings.
 - Implemented **ARIMA,TBATS**, and other models using Python in order to **predict future consumption** for new buildings.
 - Analyzed a huge number of plots obtained from matplotlib library and extensively used different features of plotting a graph.
 - Applied feature scaling, outlier detection, and feature engineering as **data pre-processing** techniques

Positions of Responsibility

- **Sub-Head, Technology Robotix Society** [Mar'19-Mar'20]
 - Developed, conceptualized and prototyped a manual robotics event '**Crescendo**' for **Robotix 2020**. I also designed tutorials for the same.
 - Technical organizer of **Robotix Event** in the technical fest, **KSHITIJ 2020**, alongside a three-tier team.
 - Organized **K.R.A.I.G. Workshop** on robotics, **Robosoccer Event** & Hackathons, mentoring over **1000+** student throughout the year.
 - Mentored a batch of **12 freshmen** students as member tier of Technology Robotix Society.
- **Project Head and Organiser, Winter School of AI** [Nov'19-Dec'19]
 - Organized the IEEE certified workshop in collaboration with **Centre for Excellence in Artificial Intelligence** for **600+** freshmens.
 - Mentored over **112+ students** in Computer Vision Workshop spread across 2 phases providing them with hands-on sessions.
 - Guided mentees to make an autonomous bot capable to follow a red cube using image processing concepts and **OpenCV libraries**.

Skills and Expertise

- **Programming Languages:** C, C++, HTML, Python (Libraries: Pandas, NumPy, Scikit-learn, Tensorflow)
- **Software and Tools:** SolidWorks, ANSYS, MATLAB, Git, Anaconda, Jupyter, Adobe Photoshop, Premiere PRO, Arduino IDE, ROS(Robot Operating System), OpenCV.

Coursework Information

Programming Courses: 1) Programming and Data Structures 2) Machine Learning A-Z Hands-On Python In Data Science 3) Machine Learning, Coursera, Stanford university 4) IEEE Computer Vision Robotics Workshop Mathematics Courses: 1) Probability and Statistics *(ongoing) 2) Transform Calculus 3) Partial Differential Equations	Finance and Market Concepts: 1) Bloomberg Market Concepts 2) Corporate Finance and Financial Accounting*(ongoing) 3) Foundation of Entrepreneurship Miscellaneous Courses: 1) Case Interview Workshop: Vector Cheng 2) Fluid Mechanics 3) Thermodynamics 4) Deep Learning Specialization*(ongoing)
--	--

Extra-Curricular Activities

- Played Lawn Tennis at **Zonal Level**, also participated in may in-campus lawn tennis tournaments.
- **Seeded** AITA (All India Tennis Association) player.
- **Certificate 'B'** candidate in NCC (**National Cadet Corp**).
- Participated in **Technology General Championship** events and Open IIT events of **Case-Study, Product Design, and Data Analysis**.
- Active member in Cultural events of LBS Hall including Illumination.