

Rohit Gupta

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Education

Indian Institute of Technology Kanpur

Kanpur, India

MASTER OF TECHNOLOGY, MECHANICAL ENGINEERING **CPI: 8.0/10.0**

2018 - 2019

BACHELOR OF TECHNOLOGY, MECHANICAL ENGINEERING **CPI: 7.7/10.0**

2014 - 2018

Central Board of Secondary Education

Kurukshetra, India

CLASS XII, AGGARSAIN PUBLIC SCHOOL **PERCENTAGE: 90.8%**

2013 - 2014

Scholastic and Co-curricular Achievements

- **IBM Machine Learning Specialization**, Earned 99% grade across 6 courses by top IBM experts. *Coursera 2022*
- **Paper on Human Robot Interaction**, Studied human behaviour towards autonomous system. *Japan, ICICIC 2017*
- **Rs 3.5+ Lac Scholarship**, Awarded Merit-cum Means for excellent academic performance. *IIT Kanpur 2018*
- **AIR 946**, Secured among 150K+ candidates in JEE Advanced. **Top 1% in NSEA** among 50K+ students *India 2014*

Professional Experience

Eaton India Innovation Center ENGINEER

Aug. 2019 - Feb. 2022

Responsibility	<ul style="list-style-type: none">• Worked on Automated manual transmission software for top OEMs such as Honda, Kensworth.• Followed Model Based Development (V-cycle) for Application Layer Software development.• Developed control algorithm for key features such as hill hold, Anti-Lock Braking System.• Analyzed electrical & vehicle components for structural integrity & provided reports with design insights.• Ensured proper software version control and Requirement Management using IBM JAZZ & ClearCase.• Application softwares used Matlab Simulink, Vector Canape, Canalyzer, Ansys Mechanical, Spaceclaim.
Impact	<ul style="list-style-type: none">• Automated the preprocessing part of the analysis leading to 10x time reduction, saving over 200 hours.• Coordinated with lead engineer and product teams on 10+ projects to deliver quality analysis.• Suggested analysis driven design changes on a product leading to an estimated \$100 K cost saving.• Got awarded 3 E-Stars for outstanding work and on time delivery on projects.

Master's Thesis

Modelling natural structures GUIDE: DR. SUMIT BASU, IIT KANPUR

May 2018 - Jun. 2019

- Studied structural optimality of plant stems by comparing them with optimal structures for given constituent materials.
- Created Matlab program from scratch for obtaining optimal micro-structure using multi-scale topology optimization.
- Analyzed, using Finite Element Method & Method of Moving Asymptotes algorithm, 20+ cases of dimensions and loads.

Projects

Multi-Task Learning for NLP tasks TERM PROJECT, MENTOR: PROF. HARISH KARNICK

Jan. 2018 - Apr. 2018

- Developed a Long Short Term Memory style network capable of learning Part of Speech & Chunking tasks simultaneously.
- Processed CoNLL2000 dataset of consisting of labelled sentences by using GloVe Embeddings.
- Implemented hard parameter sharing between networks leading to about 5% accuracy improvement on both tasks.

ModAV: Modular Aerial Vehicle B.TECH PROJECT, MENTOR: PROF. ASHISH DUTTA

Jul. 2017 - Apr. 2018

- Build modular UAV customizable into multiple configurations like quadcopter, hexacopter etc to adapt to different loads.
- Designed autonomous docking mechanism, for independent rotor & control units, while PX4 was used for flight controls.
- Managing a budget of INR 60K, worked with multiple component suppliers & lab technicians to deliver project on time.

Stock Market Prediction COURSE PROJECT, PROF. PURUSHOTTAM KAR

Jul. 2017 - Nov. 2017

- Forecasted direction of NASDAQ Comp. using Voting Ensemble of ARIMA, Kernel SVM Neural network with 62% accuracy.
- Incorporated NIKKEI, RUSSELL WILSHIRE indices, along with FOREX rates into the feature set for training models.

Twitter Mood Visualization SUMMER PROJECT, ELECTRONICS CLUB

May 2015 - Jun. 2015

- Designed an **innovative dynamic art model** expressing the mood of the twitter using different colored sands.
- Classified tweets, on a topic, using GloVe word vectors and multi-layer perceptron, into 5 emotions mapped to 5 colors.

Courses

Robot Motion Planning	Probabilistic Mobile Robotics	Computer Systems Securities
Multi-agent systems	Mechatronics	Data Structures & Algorithms
Intro to Machine Learning	Natural Language Processing	Linear Algebra

Positions of Responsibility

Coordinator, AUPTIKS EATON INDIA

Sep. 2019 - Dec. 2020

- Organised Annual Photography Contest (Shutterbox 2020) for 2000+ employees across the country.
- Coordinated with the judges and team of 8 to deliver results from 150+ entries across 4 different categories.

Book Master, Gymkhana Library PRESIDENTIAL COUNCIL

May 2016 - Apr. 2017

- Led a team of 8 individuals to ensure proper functioning of the library serving an audience of 5K+ registered members.
- Managed a budget of INR 35K to replenish the 50K+ books collection, subscribe to periodicals, organize events.

Event Coordinator TECHKRITI'16

Jan 2016 - Mar. 2016

- Coordinated astronomy events which saw participation of more than 100 teams from 50+ colleges in Techkriti 2016.
- Drafted questions and problems statements for events like Astro Treasure Hunt, Astro Quiz, WhatsUp etc.

Extra Curricular Achievements

- Successfully finished **Lucknow Heritage Half Marathon** [21.1 Km] on 3rd March 2019 in 2:05 hrs.
- Interested in learning **Foreign Languages**, took up German Level 1 in 2015 and Japanese Level 1 in 2019.
- **Volunteered** for conducting science experiments for school students as part of Eaton's CSR initiative.