



Tushar Pant
Industrial Engineering & Operations Research
Indian Institute of Technology, Bombay

193190010
M.Tech.
Gender: Male
DOB: 07-10-1994

Examination	University	Institute	Year	CPI / %
Post Graduation	IIT Bombay	IIT Bombay	2021	7.95
Graduation	G.B. Pant University of Agriculture & Technology	College of Technology, Pantnagar	2016	7.023
Graduation Specialization: Production Engineering				
Intermediate	CBSE	Nirmala Convent Sr. Sec. School	2012	85.20%
Matriculation	CBSE	Nirmala Convent Sr. Sec. School	2010	9.6

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank- 39** in Production & Industrial Engineering, GATE-2019

PROFESSIONAL EXPERIENCE

RECKITT BENCKISER INDIA PRIVATE LIMITED | Logistics Assistant, UTT-2, Sitarganj (Jul'17 - Jul'19)

- Received a **Letter of Recommendation** from the reporting manager for overall contributions in dispatches
- Spearheaded in **50% reduction** of **Turn Around Time** of loading vehicles by analysis through Gantt chart
- Responsible for daily dispatching of **35-40 trucks** on average as per the demand in **22 CFAs** across the country
- Maintained monthly plan v/s actual compliances of around **150-200 SKUs** using tools like **SAP & MS-Excel**

KEY PROJECTS & SEMINAR

SCHEDULING PICK-UP AND DROP VEHICLES ('MILK RUNS') (Jul'20 - Present)

M.Tech. Thesis Project | Guide: Prof. Nandyala Hemachandra

- Reviewed STD-TSP, dynamic programming, RL approach, simulated annealing, tabu-search and ant colony optimization
- Future work** : Integration of **Dijkstra's** algorithm and **meta- heuristics** with transportation and inventory cost constraints

ZERO- BASED TIME-TABLING OF INDIAN RAILWAY'S TRAINS (Jun'20 - Present)

Lockdown Project | Guides: Prof. Narayan Rangaraj & Prof. Madhu Belur, Team size: **22 members**

- Route- identification of **1300 trains** running in Golden Quadrilateral & diagonal routes
- Daily-izing of **278 non-daily trains** to **143** daily trains as a part of **pre-processing** for simulation
- Spearheaded in increasing the speed from **20kmph** to **50kmph** for freight trains in the relevant freight corridors

TRUCK LOADING OPTIMIZATION IN SUPPLY CHAINS (Mar'20 - Jun'20)

M.Tech. Seminar | Guide: Prof. K.S. Mallikarjuna Rao

- Presented **NSGA-II & heuristic algorithms** to solve distribution, **truck selection optimality** and **loading problems**

COVID-19 ANALYSIS IN INDIA (Mar'20 - Jun'20)

Course Project: Machine Learning | Guided by: Prof. Biplab Banerjee

- EDA** and prediction of confirmed COVID-19 cases using **Gradient Boosting, Linear Regression, Decision Tree** etc
- Forecasting for next couple of months using **FB Prophet, ARIMA, Sigmoidal** models (peak date- **8th September**)

DECISION MAKING IN NETWORK DESIGN FOR A TWO WHEELER FIRM (Feb'20 - Mar'20)

Course Project: Quantitative Models for Supply Chain Management | Guided by: Prof. Jayendran Venkateswaran

- Developed an integer programming **cost optimization model** with **AMPL** to decide an optimal distribution strategy
- Implemented **economies of scale** in transportation cost by designing linear & non-linear optimization models

KEY COURSES

- Optimization** Techniques
- Deep Learning** (Ongoing)
- Statistics** for Management Research (Ongoing)
- Integer Programming
- Machine Learning**
- Quantitative Models for **SCM**
- Supply Chain** Analytics (edx)
- Introduction to Stochastic Models
- Data Analytics** in Operations Research

POSITIONS OF RESPONSIBILITY

COMPANY COORDINATOR IN INSTITUTE PLACEMENT TEAM, IIT BOMBAY (Jul'20 - Present)

- Working in a team of **40+** members responsible for campus recruitment of **1600+** students
- Managing the recruitment procedures of **30+** companies as a **single point of contact** for the current placement season

TEACHING ASSISTANTSHIP, IIT BOMBAY (Aug'20 - Present)

Course: Topics in Learning Algorithms | Instructor: Prof. Nandyala Hemachandra

- Assisting in framing and evaluating assignments for a batch of **20+** students in coordination with the course instructor

TECHNICAL SKILLS

- PROGRAMMING LANGUAGES:** Python, Julia, R, SCILAB
- SOFTWARES:** SAP, Vensim, MS Excel, OTMS
- OPTIMIZATION SOLVERS:** AMPL, GUROBI, CPLEX
- SCRIPTING PLATFORM:** LATEX

EXTRA CURRICULAR ACTIVITIES

- 2nd** runner-up in **ARCADE-2020** (BandWar) organized by the music club of IIT Bombay (2020)
- 1st** positions in street play competitions in undergraduate college fests (2014)