



QUALITY ENGINEERING DESIGN AND MANUFACTURING (INDUSTRIAL ELECTRONICS VERTICAL) (M.Tech Dual 5Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH Dual Degree 5Y	IIT Kharagpur	8.20 / 10
2019	All India Senior School Examination	SGGS Collegiate Public School, Chandigarh	94%
2017	All India Secondary School Examination	St. Joseph School, Haryana	10 / 10

INTERNSHIPS AND PROJECTS

Operations Research | Prof. Akhilesh Kumar | Vaccination Centre Allocation In India for Covid-19 [Feb' 20 - Present]

- Built a **Linear Programming Model** to predict the optimal number of stations and allocation to demand group
- Used CPLEX to build a two-stage linear programming model for **Optimising Cost, Traveling Distance** simultaneously
- Completed vaccination phase-1 for 40 sectors at cost of INR **4.6 L** (including distance, fixed, salary)cost in **4 days**
- Formed **allocation matrix** of vaccination station to sector and team and **optimal days** for completion

Pragyata Foundation | Case Study Project | 180 Degree Consulting, IIT Kharagpur [Feb' 21 - April' 21]

- Worked collaboratively in a team to provide **Maid Rental Services** business model for unemployed women
- The Business model aimed to uplift women from socially and economically weaker sections of the society
- Carried out various secondary research and brainstormed on ideas and strategies to provide end to end B2C Model
- Developed a blueprint of Website, Market Strategy, Competitor Analysis, Expansion Plan after analyzing market

The Sparks Foundation | Data Science And Business Analytics [Mar' 21 - April' 21]

- Created a **Linear Regression model** to predict marks of students based on hours studied using supervised ML
- Applied unsupervised ML to predict optimal clusters on the dataset using **K means clustering algorithm**
- Built **Tableau Dashboards** in order to find the weak areas and providing insightful analysis of given data
- Performed similar **Exploratory Data Analysis** for Retail, Terrorism, Sports, Timeline Analysis of Covid-19

SKILLS AND EXPERTISE

Programming Languages: C | C++ | Python | HTML | CSS | SQL
Software/Tools: MATLAB | Solidworks | Microsoft Office | Tableau | LTspice | Tina TI | Freecad | Atom | VS Code
Technical: Linear Regression | Logistic Regression | Decision Trees | Support Vector Machines | Neural Networks | Natural Language Processing | Geometric Modelling | STL | Numpy | Panda | Matplotlib | Scikit learn | MySQL

COURSEWORK INFORMATION

Programming and Data Structures | Probability and Statistics | Operations Research | Signals and Networks | Analog Electronic Circuits | Electrical Measurements and Electronic Instruments | Geometric Modelling and Design

CERTIFICATIONS

Applied Algorithm and Data Structures | Algozenith [Feb' 21 - Present]

- Completed 6-month Bootcamp for practicing algorithms and enhancing problem-solving skills
- Built in-depth **knowledge of algorithms** such as Graph, Brute Force, Dynamic Programming, and many more

Machine Learning A-Z Hands-On Python In Data Science | Udemy [Jun' 21 - Present]

- Learned various **Machine learning** tools such as Data Preprocessing, Regression, Classification, Clustering
- Implemented Deep learning, NLP, Reinforcement Learning, many other algorithms on Google Colaboratory

BCG Consulting Virtual Experience Program | Boston Consulting Group [May' 20 - June' 20]

- Built an efficient Marketing plant to enhance the profitability of a **Telecom Service Provider** for handset leasing
- Proposed **Handset Leasing Model** by understanding Consumer's Behavior and applying Market Research concepts

POSITIONS OF RESPONSIBILITY

Consultant | 180 Degrees Consulting | IIT Kharagpur [Jun' 20 - Jun'21]

- Built a **Multi-Level Marketing** plan for a women-led, green start-up based on Plant Air Purifier
- Analyzed different MLM compensation plan and proposed **Hybrid Binary MLM Model** with its compensation plan
- Organized a **Product Case Competition** and managed 100+ participants, webinar and their submissions
- Designed **CSR Database** to make funding approach easy for NGO's to pitch companies
- Led a team of 10 Consultants on "**Education Reform Strategy**" implemented across schools under an NGO Bhumi

EXTRA CURRICULAR ACTIVITIES

- Participated in **General Championship Sports** in Hockey from Lal Bahadur Shastri Hall of Residence IIT Kharagpur
- Part of **Illumination Team** 2020 in Lal Bahadur Shastri Hall of Residence IIT Kharagpur
- Member of National Sports Organization:**Health and Fitness** to spread awareness towards healthy living