



Saransh Gupta

Quality Engineering Design and Manufacturing | 17QM30005
E-208, Azad Hall of Residence, IIT Kharagpur

[Website](#) | [Github](#) | [Linkedin](#) | [E-mail](#) | Mob. No: (+91)9530277421



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2022	M.TECH Dual Degree 5Y	Indian Institute of Technology, Kharagpur	7.85/10
2016	Senior Secondary Examination	Shiv Jyoti sr. sec. public school, Kota	85.4%
2014	Secondary Examination	Shri Maheshwari sr. sec. public school, Jodhpur	89.5%

Research Experience

Research Assistant (Remote)	Mizuguchi Lab, NIBIOHN, Osaka, Japan	Jan 2020 - Sep 2020
<ul style="list-style-type: none"> Contributed to writing a research paper on the prediction of the Non-small cell lung cancer (NSCLC) and identify its potential drug targets Implemented Boruta Feature selection and extracted 412 highly contributing genes out of 10077 which play a key role behind this cancer Applied CatBoost classifier on the 412 genes to predict the cancer with an accuracy of 99% upon validation and 100% on the test dataset Single-handedly simulated a Bayesian Network Model for the "Rho GDI signaling pathway" to detect aberrations & identify the drug targets This research will lead to an early diagnosis, accurate treatment of the disease directly impacting the 85% of the total lung cancer patients Tools and Software: Python, Boruta, TargetMine, CatBoost, scikit-learn, SMOTE, networkx, pgmpy, numpy, pandas, plotly, joblib 		

Internship Experience

Data Science Associate – Intern	ZS Associates Inc.	Jan 2021 – present
<ul style="list-style-type: none"> Collaborated with an offshore team to develop a NLP based pipeline which predicts the relationship between entities for drug repurposing Developed an automated pipeline using selenium to extract texts from PubMed and identify the bio-entities present using pubtator Generated the rules based on bio-verbs, dependency graphs and Co-occurrence of entities which were used as labelling functions in Snorkel Deployed an end to end pipeline using Snorkel and attention based transfer learning models to predict relationships between bio-entities Tools & Software: Python, tensorflow, Transfer Learning, Medline-Plus API, Pubtator, Selenium, Snorkel, Jupyter Notebook 		
Data Analyst Intern	Sapio Analytics PVT LTD	May 2020 - July 2020
<ul style="list-style-type: none"> Worked with the team to build a web based Decision Support System for the prediction of COVID-19 at the hyperlocal level Led to the Innovation of a Migration-Lockdown based SEIRD model, reduced the error in predictions up to 4.8% by optimizing its parameters The application has been used by The Govt. Of Telangana to mitigate COVID-19 spread while maximizing their economic activities Tools and Software: Python, scipy, numpy, pandas, matplotlib, jupyter notebook, AWS, sqlalchemy 		
Deep Learning & Computer Vision Intern	Swaayatt Robots PVT LTD	April 2020 - June 2020
<ul style="list-style-type: none"> Worked towards automating the feature extraction and bounding box tracking in different conditions of Day light and road semantics Programmed SuperPoint algorithm, a deep learning approach to extract the features of an image for Point tracking and Visual Odometry Tools and Software: Python, pandas, numpy, tensorflow, pytorch, OpenCv, matplotlib, Jupyter Notebook 		

AWARDS AND ACHIEVEMENTS

<ul style="list-style-type: none"> Awarded as Intern of The Month for my contribution as a Data Analyst to the COVID-19 project at Sapio Analytics by the CEO of the company Got featured in the ISE Newsletter Autumn-2020 under the Department Spotlight of ISE fights COVID-19 for internship at Sapio Analytics Selected for a scholarship of 2200 euros by The Aix-Marseille University, France for the summer internship ** Secured Top 5% position among the total applicants of the summer internship program at The Institute of Science & Technology Austria 		
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SKILLS & EXPERTISE

<ul style="list-style-type: none"> Programming & Applications: Python, C++, R, C, Image Processing, Computer Vision, Machine Learning, Deep Learning Software: Tableau, MATLAB, ANSYS, Solid works, Unity3D, R-Studio, MATLAB, SOLIDWORKS, Visual Studio, MS-EXCEL
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Competitions/Conferences

International Conference on Human Interaction & Emerging Technologies: Future Applications		27-29 August, 2020
<ul style="list-style-type: none"> Virtually Presented the research paper on "Development of a virtual reality based fire training simulator and machine learning based path guidance system: A case of hospital fire breakouts" at Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland 		
Inter-Hall Data-Analytics competition	Azad-Hall, IIT Kharagpur	10 Feb, 2019
<ul style="list-style-type: none"> Awarded with BRONZE for the Inter-Hall Data-Analytics General Championship organized by The Technology Students Gymkhana 		
Data-Analytics and business case study event	Shaastra-the annual Tech Fair, IIT Madras	6 Jan, 2020
<ul style="list-style-type: none"> Stood 2nd at the data analytics event DataBuzz, Shaastra, the annual Tech and Innovation fair at IIT Madras 		

POSITIONS OF RESPONSIBILITY

IIT KGP Student Mentorship Program	Student Welfare Group, IIT Kharagpur	From July 2019
<ul style="list-style-type: none"> Mentoring four undergraduate students of the same branch under the shade of Student Welfare Group, IIT Kharagpur Responsible for regular counselling of the undergraduate students assigned by the Student Welfare Group, IIT Kharagpur 		

CERTIFICATIONS & COURSES

Department Courses: Probability and Statistics, Operations Research-I, Programming and Data Structures, Optimization and Heuristic Methods
MOOC Courses: Machine Learning, Data Analytics, Algorithms in programming, Deep Learning, 3D Simulations and Virtual Reality

EXTRA CURRICULAR ACTIVITIES

<ul style="list-style-type: none"> Swimmer at water-polo team of Azad-hall of residence, Inter-hall general championship events, TSG - IIT Kharagpur Presentation team member of Inter-Hall Gardening competition team at Azad-hall of residence, TSG - IIT Kharagpur Manager at KHOJ, the annual treasure hunt event conducted by The Azad hall of residence and TSG, IIT Kharagpur 	<p>March 2018</p> <p>March 2019</p> <p>August 2018</p>
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** (cancelled due to COVID-19)