



SURAJ GUPTA | 20HS20067



ECONOMICS (M.Sc. 5Y)

Minor in Mathematics and Micro-Specialization in AI & ML

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## EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	5 YRS M.SC	IIT Kharagpur	8.43 / 10
2020	Class XII (HSC)	KES Junior College of Science, Mumbai	85.38%
2018	Class X (SSC)	Ahyudaya Nagar School, Mumbai	92.6%

## INTERNSHIPS

**Data Science Intern | Cross-Selling Optimization | Raymonds Limited (Analytics Department), Mumbai** [July '22 - Aug '22]

- Engineered **27-dimensional feature** vectors on over **100,000** records, improving F2 scores from **0.54 to 0.93**, utilizing XGBoost and RandomForest models
- Demonstrated exceptional model performance by limiting the overall **False Negative rate** to below **0.4%** while maintaining an outstanding **recall value**
- Employed **Cross Validation techniques** and **hyperparameter tuning** using the **RandomizedSearchCV** python library to fine-tune the XGBoost model
- Successfully deployed the model to analytics department, resulting in a remarkable **7% response rate** from a test on **10,000 customers** within 1 week

**Data Engineering Intern | Single-cell Dataset Extraction | Elucidata Data Consulting Pvt Ltd** [Jan '24 - Mar '24]

- Utilized Polly and OmixAtlas APIs alongside **GPT-4 Turbo Preview model** for automated extraction of single-cell and related metadata from publications
- Employed APIs to curate **91 lakh PMCID data**, subsequently cleaning it to filter publicly available publications containing information on drugs and gene
- Engineered prompts for over **300 publications**, optimizing token usage for precision, and crafted a **knowledge graph** with accurate and relevant output

**Research Intern | Migration Analysis and Econometric Modeling | Prof. Sayak RoyChowdhury | IIT Kharagpur** [Jun '22 - Feb '24]

- Conducted in-depth analysis on migration rates in the Sundarbans, examining the impact of various economic indicators on people's **migration patterns**
- Compiled and processed an extensive proprietary dataset from the **CMIE Database**, encompassing over **4.5 lakhs** of monthly and quarterly data points
- Employed python to meticulously collect and merge **630+ features**, ensuring accuracy and completeness of the **panel data** regression analysis in **Stata**
- Utilized advanced **econometric techniques** including **Hausman**, **LM test** to determine the significant features, resulting in a refined **Fixed Effects model**
- Collaborating on an extensive **research paper**, extending the scope of the work to state-level data analysis, with **67.8 lakh** data points and **772 features**

## ENTREPRENEURIAL EXPERIENCES

**Founder & Executive Head | KodeinKGP : Technology Web3.0 Society | IIT Kharagpur** [ Apr '21 - Present]

- Founded and led the KodeinKGP : Technology Web3.0 Society, developing a **problem-solving web portal** utilizing Web2.0 for student-related challenges
- Organized 2 hackathons on **web3.0 development**, attracting over **600** participants and a Web3.0 Summer Training Workshop attracting **700+** students
- Built a talented team of executives in AI, Metaverse, Blockchain, UX, and Events facets, crafting a **Statement of Procedure and Proposals** for the society
- Established and managed a thriving **blockchain community** with **2500+** participants, consistently sharing weekly blogs and posting relevant opportunities

## PROJECTS

**Data Analytics | Time Series Forecasting for Manufacturing Unit State Prediction | General Championship** [Apr '23 - Jun '23]

- Developed a **CNN-GRU** time series forecasting model for predicting manufacturing unit states based on **25 sensors**, achieving overall **97% accuracy**
- Improved inventory management by accurately predicting unit states at **10-minute intervals**, achieving **1st position in accuracy** and an overall **podium**

**Flask CV Refiner : Empowering CVs with OpenAI's GPT-3.5 | Startup Gateway Hackathon | Mercor** [Jun '23 - Jul '23]

- Developed and deployed Flask CV Refiner, leveraging a **large language model (LLM)** and **Flask** to refine CV content and enhance job market prospects
- Led the **startup pitch**, showcasing technical expertise in Python, **Flask (pdfplumber, openai, aiapi)**, and **LLM integration** for automated CV refinement

## SKILLS AND EXPERTISE

**Industry Domain Knowledge:** Data Visualization, Data Analytics, Machine Learning, Full StackDevelopment, App Development, Responsive Web Design

**Languages and Frameworks:** C/C++, Python, JavaScript/TypeScript, HTML, CSS/SCSS, React.js, Next.js, Vue, Node.js, Express.js, React Native, Solidity, Flask

**Tools and Technologies:** Git, Github, Numpy, Pandas, ScikitLearn, Matplotlib, OpenCV, Linux, Figma, Firebase, AWS, Google Cloud, MongoDB, Netlify, NPM

## COURSEWORK INFORMATION

Econometric Analysis | File Organization and Database Systems | Probability and Statistics | Programming and Data Structures | Artificial Intelligence: Foundations and Applications | Operation Research | Corporate Valuation | Microeconomics | Macroeconomics | Financial Institutions and Markets

## POSITIONS OF RESPONSIBILITY

**Secretary : Web | Technology Students' Gymkhana | IIT Kharagpur** [Jul '21 - Jul '22]

- Nominated from among **15039 students** and responsible for all the technological advancements on the campus along with Technology Coordinator, TSG
- Built a **Digital Inventory System** to manage and record the transactions of the sports inventory of around 6 stores in IIT Kharagpur worth **Rs.10 crores**
- Spearheaded the development of the **official Gymkhana website**, incorporating **certificate generator** and **notifications** features from the ground up

**Hall President | Coordinator : Technology | Vidyasagar Hall of Residence | IIT Kharagpur** [Jul '22 - Jul '23]

- Successfully managed a year-long budget of **Rs. 5,00,000+** across **10 technology events** as part of the General Championship 2022-2023, IIT Kharagpur
- Provided guidance and mentorship to **Data Analytics** and **Open Soft** teams as **Vice-Captain**, leading them to secure 3rd and 4th positions, respectively
- Developed a **dynamic website**, implementing an **Issue Conveying Portal** using **Nodemailer**, resulting in an average of **37 issue submissions per month**

**Tech Sub-Head | Spring Fest | IIT Kharagpur** [May '21 - Apr '22]

- Co-headed the team responsible for **building, hosting and maintaining** Spring Fest 2022 websites, including the flagship **springfest.in** - mobile version
- Part of the team that entirely built **NWP (Nation Wide Prelims)**, **Teams** and **Alumni portal** which witnessed a participation of **20,000+** college students

## EXTRA CURRICULAR ACTIVITIES

**Sports and Games:** Represented Vidyasagar Hall of Residence in the **table-tennis team** in Interhall Sports Inter Hall Competition 2021-2022, IIT Kharagpur

**Technology Events:** Won Silver in **Hardware Modelling**, Bronze in **Data Analytics** and Bronze in **Case Study** Competition under General Championship '23

**International Astronomy and Astrophysics Competition:** Secured a **bronze** position out of **4,700 global participants** in the prestigious IAAC Competition

**Adventure:** Organized and Participated in **Har Ki Dun Trek**, Uttarakhand and **Sar Pass Trek**, Himachal Pradesh as Governor, Technology Adventure Society