SHIVANSH GUPTA

gshivansh2001@gmail.com LinkedIn GitHub Homepage

EDUCATION

Indian Institute of Technology (ISM), Dhanbad **2023**
B.Tech, Petroleum Engineering *7.83 GPA*

RESEARCH EXPERIENCE

Indian School of Business (ISB), Pre-Doctoral Researcher **Dec'24 - Ongoing**
Department: *Information Systems* ***Advisor:*** *Prof. Vasundhara Sharma* *Hyderabad*

- Developing an original early-stage research idea; responsible for data collection, preliminary empirical tests, model validation, and feasibility assessment for future publication.
- Designed and deployed randomized Qualtrics surveys with dynamic question flows, embedded experiments, manipulations, and attention-check logic, supporting causal inference in behavioral studies.
- Executed end-to-end data workflows: web scraping , large-scale text processing , data cleaning, statistical analysis, and visualization.
- Performed econometric analyses using panel regressions, event-study frameworks, supervised ML pipelines, and agent-based simulations to study digital platform behavior.
- Conducted systematic literature reviews in platform governance, misinformation, IS/marketing strategy, and digital public policy to synthesize theoretical frameworks and identify research gaps.
- Methodological toolkit: econometrics, causal inference, survey design, simulation, and computational text analysis.

Directorate General of Mines Safety (DGMS), Project Intern **Aug'22 - May'23**
Advisor: *Prof. Siddharth Aggarwal* *Dhanbad*

- Developed a custom text-mining pipeline to extract structured data from multi-year PDF fatality reports.
- Built and released a publicly accessible MySQL database of mining-fatality records for longitudinal research use.
- Conducted exploratory and statistical analyses to identify systemic patterns and root causes of mining accidents.

Indian Institute of Management (IIM) Udaipur, Research Intern **May'21 - Jul'21**
Advisor: *Prof. Ashish Galande* *Udaipur (Remote)*

- Constructed a large-scale dataset of Fortune 500 firms' Twitter activity via Python-based web scraping.
- Applied NLP techniques to measure sentiment, lexical diversity, and linguistic patterns across firms and sectors.
- Implemented RNN-based sentiment classification in TensorFlow to benchmark performance against rule-based methods.

RESEARCH

Research Interest

My research interests lie in quantitative information systems, particularly in understanding how digital platforms shape user behavior, economic incentives, and societal outcomes. I want to focus on platform governance, algorithmic decision-making, and digital market design. Broadly, I use large-scale empirical data, causal inference, and computational methods to study platform inequities and inform the responsible design and regulation of digital ecosystems.

Work in Progress

- Social Movements and Bias in Digital Learning Environments: (with Prof. Vasundhara Sharma, Prof. Deepa Mani, Prof. Aditya Karanam).
- The Generative AI Dilemma in Open-Source Development: (with Prof. Vasundhara Sharma, Prof. Aditya Karanam).
- AI Disclosure and Early-Stage Venture Funding Cycles: (with Prof. Vasundhara Sharma, Aketi Gayatri).

Research Assistance

- Platform Design to Curb Misinformation. (with Prof. Vasundhara Sharma).
- Hidden Advertising in YouTube Kids Content. (with Prof. Vasundhara Sharma, Prof. Sumeet Kumar).

Conferences

- Shekhar, H., **Gupta, S.**, Aggarwal, S. (2019). Automated Analysis of DGMS Fatality Reports Using NLP: Evidence from Indian Non-Coal Mines. Presented at the 4th International Conference on Information Systems and Computer Networks.

Patents

- Singh, J., Das, S., **Gupta, S.**, Kagdi, I. *Method and System for Classifying and Detecting True Well-Control Events During Drilling Operations*. Indian Patent Office, Patent No. 202311057956. Status: Published, Under Review.

Relevant Coursework

PhD Level Coursework *Credited at ISB, Hyderabad*

- Statistics A (Inferential Statistics), Econometrics A

Undergraduate Coursework *Credited at IIT (ISM) Dhanbad*

- Engineering Economics & Finance, Data mining, Financial Econometrics, Operations Research, Development Economics, Machine Learning, International Macroeconomics & Monetary Policy, Reservoir Modelling and Simulation

Skills

- **Programming Languages:** C, C++, Python, SQL
- **Framework:** Keras, TensorFlow, Flask, Lang Chain, Gradio, PyTorch
- **Tools:** MS Excel, PowerBI, Azure Cloud (OpenAI Studio, ML Studio, Databricks, Function and Power Apps)
- **Libraries:** matplotlib, seaborn, pandas, NumPy, stats models, NLTK, OpenCV, Plotly, spaCy, Scikit - learn

Industry Experience

HCLTech, Data Scientist **Jul'23 - Nov'24**

Clients: Chevron, ExxonMobil *Bangalore*

- Developed supervised ML models on large-scale Azure Virtual Desktop log data to support automated issue detection.
- Built an LLM-based information extraction pipeline for converting drilling reports into structured OSDU formats.
- Maintained ETL workflows and analytical dashboards for 800+ operational wells.

HCLTech, Machine Learning Intern **May'22 - Aug'22**

Project Client: ExxnonMobil *Noida (Remote)*

- Built a Machine learning-based alarm system for detecting kicks and blowouts using the Equinor Volve dataset.
- Designed a Daily Drilling Reports based labeling framework with feature engineering, preprocessing, and class-imbalance correction, which later formed the basis of a filed patent.

Achievements

Scholastic Achievements

- Top 10% (AIR 96) in the Univ.AI Data Science Hackathon.
- Bronze Medal, Otto Group Product Classification Kaggle Competition.
- Summer Undergraduate Research Fellowship, Department of Computer Science, IIT (ISM) Dhanbad.
- Merit-cum-Means (MCM) Scholarship recipient for all eight semesters.

Extracurricular

- Served as Editorial Head, SPE IIT (ISM) Student Chapter; contributed to winning the 2022 Student Chapter Excellence Award (top 20% globally).
- Placed 2nd (mono-act director) and 5th (stage play director) at InterIIT Cultural Meet 2022 among 23 participating IITs.
- Represented District Cricket Team Banda in the Under-17 Ranji Trophy (2016).

Volunteer Activities

- **Volunteer, CODE: Conference on the Digital Economy** Jan 2025, Varanasi
  Coordinated venue setup, session transitions across 20+ presentations, and participant logistics.
- **Teaching Assistant, SPE IIT (ISM) Student Chapter** 2021-22, Dhanbad
  Designed and taught a short course on Machine Learning and Python for first-year undergraduates.
- **Volunteer, Kartavya NGO** 2020–22, Dhanbad
  Provided mathematics academic support to 9th–10th grade students through structured weekly sessions

Exam Scores

- IIT JEE Advanced (2019): AIR 7,586 - 95.3th percentile among 190K candidates.
- IIT JEE Mains (2019): AIR 5,497 - 99.52th percentile among 1.1 million candidates.
- CAT (2023): 98.06th percentile.
- GRE (2025): *To be updated*.

References

Vasundhara Sharma
Assistant Professor, Information Systems
Indian School of Business, Hyderabad
Email: vasundhara_sharma@isb.edu

Aditya Karanam
Assistant Professor, Information Systems
School of Computing, National University of Singapore
Email: karanam@nus.edu.sg

Deepa Mani
Deputy Dean, Professor, Information Systems
Indian School of Business
Email: deepa_mani@isb.edu

Jaspreet Singh
Associate Vice President, Topaz Delivery Head (America)
Infosys
Email: jassy_mt@yahoo.com