Suryam Gupta

Amherst, MA | (413) 510-7695 | Email | GitHub | LinkedIn

EDUCATION

Master of Science, Data Analytics and Computational Social Science Expected May 2026
University of Massachusetts Amherst, Amherst, MA GPA: 4.00/4.00
Relevant Coursework: Data Science Fundamentals | Introduction to Quantitative Analysis | Text as Data

Integrated (BS+MS) Master of Science, Mathematics Aug 2019- June 2024
Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India CGPA: 8.26/10.00
Relevant Coursework: Probability & Statistics | Algebra | Numerical Analysis | Differential Equations | Optimization

WORK EXPERIENCE

Graduate Tutor & Consultant - Data Analytics and Computational Social Science Sep 2024- Present
University of Massachusetts Amherst, Amherst, MA

- Provide targeted tutoring and consultation to over 30+ graduate students, assisting with Python, R, and statistical methods for Data Science, Quantitative Analysis, and NLP coursework to build their confidence and analytical skills.

RESEARCH EXPERIENCE

Evaluating Psychometric Features and Contextual Embeddings of Biomedical Texts May 2023- June 2024
Research Intern, IDSIA, USI/SUPSI, Lugano, Switzerland

- Extracted psychological features (emotions, intensity, LIWC metrics, contextual embeddings) from biomedical texts.
- Developed predictive models with XGBoost and multi-layer deep learning architectures to classify texts (anxiety, panic, depression) with an F1-score of 0.894, and employed Large Language Models (LLMs) for causal inferencing.
- **Tech Stack** - transformers, aspect-based-sentiment-analysis, Linguistic Inquiry and Word Count (LIWC), TensorFlow

Analyzing Amazon Reviews, Textual Metrics, and User's Perceived Helpfulness June 2022- Dec 2022
Project Intern, Indian Institute of Management Nagpur (IIMN), Maharashtra, India

- Leveraged Natural Language Processing (NLP) and text pre-processing techniques to analyze 1M+ Amazon reviews for review length, breadth, readability, writing style, sentiment balance, and other engagement metrics.
- Calculated their association with the 'Votes' count to comprehend the features that affect the perceived helpfulness.
- **Tech Stack** - nltk, spaCy, transformers, gensim (Topic Modelling), wordcloud, TensorFlow, pyLDAvis, readability

Linear & Integer Optimization using Python PuLP and AMPL May 2022- July 2022
Summer Intern, Indian Institute of Management Ahmedabad (IIMA), Gujarat, India

- Worked with 16 real-life optimization problems and constructed their mathematical models.
- Found their optimal solution using CBC & CPLEX solver by employing AMPL software and PuLP library of Python.
- **Tech Stack** - PuLP, NetworkX, AMPL, Microsoft Excel, pandas

Time Series Forecasting Jan 2022- Mar 2022
Internship Trainee, Adani Industry Cloud, Ahmedabad, Gujarat, India

- Analyzed 4 years of household power consumption data and derived inferences through EDA, graphs, and charts.
- Built a Long Short-Term Memory (LSTM) model to predict future consumption and an interactive Power BI dashboard.
- **Tech Stack** - pandas, NumPy, Matplotlib, Seaborn, scikit-learn, TensorFlow, Microsoft Power BI

RESEARCH PUBLICATIONS

Mitrović, S., Frisone, F., **Gupta, S.**, Lucifora, C., Čarapić, D., Schillaci, C., Di Giovanni, S. & Singh, A. (2023b) *Annotating Panic in Social Media using Active Learning, Transformers and Domain Knowledge.* 2023 IEEE International Conference on Data Mining Workshops (ICDMW), IEEE.

ACHIEVEMENTS

- Received Swissnex ThinkSwiss Research Scholarships: Asia-Pacific of worth USD 4,500. May 2023

SKILLS

- **Programming Languages:** Python | R | C | C++ | Java | MATLAB | SQL
- **Softwares:** Jupyter Notebook | Quarto | AMPL | LaTeX | LIWC | Microsoft Excel | Microsoft Power BI