

Shivansh Gupta

Graduate
IIT (ISM) Dhanbad
[ashishpanchal33.github.io](https://github.com/ashishpanchal33)

+91-7725975890
gshivansh2001@gmail.com
linkedin.com/in/shivanshgupta2001
github.com/gshivansh2001

EDUCATION

Qualification	Institute	CGPA/Percentage	Year
B.Tech., Petroleum Engineering	Indian Institute of Technology (ISM), Dhanbad	7.83/10	2023
Class XII - Science , CBSE	Nalanda Academy, Kota	87.6%	2018
Class X, CBSE	St. Mary's Sen. Sec. School, Banda	10/10	2016

EXPERIENCE

- **Indian School of Business, Pre - Doctoral Research Associate** Dec'24 - Ongoing
Department: Information Systems, Advisor: Prof. Vasundhara Sharma Hyderabad, IN
 - **Research Focus:** Passionate about applying machine learning (ML) and data science to macroeconomic measures and public policy, aiming to evaluate and enhance their impact on society.
 - Conducting a research project on the impact of social movements in the digital world and another project simulating a virtual environment to curb the spread of misinformation in social networks, while supporting professors in academic research and data-driven analyses.
 - Currently working with web scraping tools like Selenium, applying natural language processing (NLP) techniques, and leveraging large language models (LLMs) for text data analysis and generating actionable insights.
 - **Methodologies:** Econometric Analysis, Structural Modeling & Survery
 - **Courses Taken:** Advanced Statistics, Econometrics - I
- **HCLTech, Data Scientist** Jul'23 - Nov'24
Clients: Chevron, ExxonMobil Bangalore, IN
 - Working with the AIOps team to develop a supervised machine learning model which analyzes Azure Virtual Desktop log data to predict issues to automate and streamline L1 support.
 - Developed a Generative AI application for analyzing O&G daily drilling reports (DDRs) to convert them into OSDU-compliant JSON data for direct ingestion in the OSDU environment. Used Azure ML Studio with OpenAI GPT-3.5 Turbo API and LangChain in Python for developing the application and Gradio for developing the interface.
 - Created and managed data pipelines and dashboards for asset management across 800 O&G wells using Azure Databricks, Power BI and internal asset management tools.
 - Developed an application for registering new and reimaged remote desktop data, creating an SQL database for asset management with Azure Function and Power Apps in Python.
 - Contributed to OSDU production and logging practices with DataVedik.
- **Directorate General of Mines Safety (DGMS), Project Intern** Aug'22 - May'23
Advisor: Prof. Siddharth Aggarwal Dhanbad, IN
 - Developed data scraping model using re & NLTK libraries for text mining & extracting numerical data from yearly mine fatality PDF reports.
 - Created a comprehensive MySQL database to store mine fatality records, enabling effective data processing with pandas.
 - Facilitated a comprehensive analysis of root causes of fatalities through data visualization using Plotly and Matplotlib in Python.
- **HCLTech, ML Intern** May'22 - Aug'22
Client: ExxonMobil Noida (Remote)
 - Developed adaptive ML-based alarm system using Random Forest in Python for early detection of kicks and blowouts in O&G wells, using Equinor's Volve dataset.
 - Addressed imbalance in the dataset with SMOTE. Trained supervised ML models using Sklearn & TensorFlow for optimal prediction results.
 - A patent was filed (in progress) for the data labelling mechanism used in the model. Received pre-placement offer upon completion.
- **IIM Udaipur, Research Intern** May'21 - Jul'21
Department: Marketing, Advisor: Prof. Ashish Galande Udaipur (Remote)
 - Created a structured dataset of Fortune 500 companies' tweets through web scraping using Twint and Scrappy in Python to analyze CSR activities and study principles of conscious capitalism.
 - Utilized text analysis and NLP techniques to compute lexical diversity and sentiment scores using NLTK and VADER libraries.
 - Preprocessed and vectorized text, and leveraged sentiment scores to develop a sentiment analysis model using RNN in TensorFlow.

PROJECTS

- **Face Mask Detection Using CNN | Dataset: Masked Images using Bing Search API** *May 2021 – Jul 2021*
Tools: Python, CNN, VGG-19, ResNet50, TensorFlow, Keras [Project Repository](#) | [Project Demo](#)
 - Developed the model using CNN, applying image data preprocessing and augmentation techniques to enhance robustness.
 - Trained and fine-tuned VGG-19 and ResNet50 pre-trained models, achieving a high training accuracy of 0.994.
 - Demonstrated effectiveness in real-time mask detection scenarios by testing on diverse image sets.
 - Utilized Bing Search API to curate a dataset of masked and unmasked faces for supervised training.
- **Gender & Age Prediction Using Voice | Dataset: Common Voice Dataset** *May 2021 – Jul 2021*
Tools: Python, TensorFlow, Librosa, Pandas, Seaborn [Project Repository](#) | [Project Demo](#)
 - Converted audio files and extracted features using MFCC with the Librosa library for audio preprocessing and exploratory data analysis.
 - Trained multiple ML algorithms to build two models for gender and age detection, achieving accuracies of 0.93 and 0.79 respectively.
 - Implemented data visualization and pattern analysis using Pandas and Seaborn to support model interpretation.

SKILLS

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

CERTIFICATIONS

- Azure Fundamentals (AZ 900), [Microsoft](#) *2023*
- Azure AI Fundamentals (AI 900), [Microsoft](#) *2024*
- Azure Power BI Data Analyst (PL 300), [Microsoft](#) *2024*
- Deep Learning Specialization, [Deeplearning.ai](#) *2021*

ACHIEVEMENTS

- Achieved top 10%ile, Univ.AI Data Science hackathon, displaying analytical prowess with an AIR of 96.
- Headed the SPE IIT (ISM) Student Chapter Editorial, securing the 2022 Student Chapter Excellence Award, awarded to only the top 20% of chapters globally
- Earned a Bronze medal in the Otto Group Product Classification Kaggle Competition, showcasing expertise in ML and data classification.
- Secured 2nd position for writing and directing mono-act & 5th position in stage play as director at InterIIT Cultural Meet '22, outperforming 23 IITs

POSITIONS OF RESPONSIBILITY

- Coordinator, [aBhAy Dramatics Club](#) *Apr'21 - Apr'22*
- Head Chapter Editor, [SPE IIT \(ISM\) Student Chapter](#) *Feb'21 - Feb'22*
- Volunteer, [Fast Forward India](#) *2019 - 2023*