

Muskan Jain

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EDUCATION

Florida Institute of Technology, Florida, United States of America

Aug'21-May'23

Masters in Computer Science

GPA: 3.86

Relevant coursework: Artificial Intelligence, Biometrics, Analysis of Algorithms, Computer and Information Security, Cryptography

Shree Guru Gobind Singh Tricentenary (SGT) University, Haryana, India

Aug'17- June'21

B. Tech in Computer Science

GPA: 3.5

PROFESSIONAL EXPERIENCE

Identity Lab, Florida Institute of Technology - Melbourne, Florida

Jan'22-May'23

Graduate Research Assistant

- Led team in advancing identity modeling, biometrics, AI/ML techniques using Python, optimizing image/video quality by mitigating atmospheric turbulence through end-to-end pipeline deployment, and driving innovation in identity management.
- Implemented data science methodologies to refine expenditure data into user-friendly formats, leveraging Excel macros and Python libraries, optimizing Python code for a 40% efficiency boost, and utilizing machine learning algorithms for accelerated image and video processing.
- Drove data analytics initiatives, integrating big data into pre-processing pipelines to enhance system performance, conducting rigorous data collection, cleaning, and validation, and performing exploratory data analysis to identify patterns in facial recognition.
- Applied inferential statistics to uncover latent patterns, trends, and correlations within datasets, generating comprehensive graphical reports using Python, Tableau, and Power BI to amplify data-driven decision-making processes.

Tickteck IT Solutions - New Delhi, India

May'20 – May'21

SQL Developer

- Collaborated with cross-functional teams to implement Agile, resulting in a 20% reduction in processing time by streamlining workflow processes and eliminating redundant tasks.
- Orchestrated end-to-end project lifecycle, managed requirements gathering sessions, conducted user acceptance testing, ensured seamless integration with existing systems, and reduced project turnaround time by 25%.
- Designed and implemented SSIS Packages and SQL procedures to automate data extraction and transformation processes, resulting in a 30% decrease in data processing errors and a 20% increase in data accuracy.
- Utilized advanced statistical analysis and data visualization techniques with Tableau to analyze large datasets and uncover customer behavior patterns informing targeted marketing strategies that led to a 15% increase in revenue within six months.

SKILLS

Functional: Exploratory data analysis (EDA), Statistical Analysis (SAS, R), Matplotlib, Data Manipulation (Pandas)

Technical: Python, Database Management (SQL, MySQL, Snowflake), Machine Learning (SciKit-learn, TensorFlow, Keras), Data Mining (MongoDB), Version Control (Git/GitHub), Cloud Platforms (AWS), Containerization (Docker)

Statistical Framework: Python- NumPy, Pandas, SciPy, Scikit-learn and TensorFlow, Keras, NLP (NLTK, spaCy)

Data Visualization: Tableau, Matplotlib, Power BI, Data Analysis (Jupyter Notebook)

Additional Tools: Microsoft Office Suite (including MS Excel), Neo4J, GenAI, LLM, Web Scraping (BeautifulSoup, Scrapy)

PROJECT EXPERIENCE

Movie Recommendation RAG System with OpenAI Embeddings

Feb'24-March'24

- Conducted step-by-step implementation of the embedding model: text-embedding-3-small within a Retrieval Augmented Generation (RAG) System powered by MongoDB Atlas Vector Database.

Food Delivery App Data Analysis with LLM

Jan'24-Feb'24

- Used Lang Chain with OpenAI to perform the data cleaning process of the Zomato dataset making it ready for analysis in no time.

Assessing the Effect of Atmospheric Turbulence on Long-Range Face Recognition Accuracy

Aug'22-May'23

- Performed experiment-based analysis to assess the effect of atmospheric turbulence on biometric degradation using Rytov Value and deriving insights for enhanced performance.
- Managed extensive image, video, and metadata datasets, necessitating adept data management and visualization techniques for project coherence and efficiency.

Exploring India's COVID-19 Journey: A Case Study Analysis

June'21- July'21

- Worked on a real-world dataset to analyze India's COVID-19 journey while cleaning the dataset, analyzing it, and mining informational insights using Python and MySQL.