

Muskan Jain

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EDUCATION

Florida Institute of Technology, Florida, United States of America Masters in Computer Science Relevant coursework: Artificial Intelligence, Biometrics, Analysis of Algorithms, Computer and Information Security, Cryptography	Aug'21-May'23 GPA: 3.86
Shree Guru Gobind Singh Tricentenary (SGT) University, Haryana, India B. Tech in Computer Science	Aug'17- June'21 GPA: 3.0

PROFESSIONAL EXPERIENCE

Identity Lab, Florida Institute of Technology - Melbourne, Florida Graduate Research Assistant <ul style="list-style-type: none">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.	Jan'22-May'23
Tickteck IT Solutions - New Delhi, India SQL Developer <ul style="list-style-type: none">Collaborated with the team to identify system improvement opportunities, facilitating streamlined processes and enhanced efficiency.Participated in all phases of the System Development Life Cycle (SDLC), encompassing system definition, design, development, testing, evaluation, and maintenance, ensuring seamless project progression and successful implementation.Developed SSIS Packages, and SQL Stored Procedures, and implemented table partitioning and indexes to optimize data acquisition, manipulation, and query performance, thereby enhancing overall system reliability and responsiveness.Performed detailed analyses of database objects for seamless integration, analyzed large datasets to uncover trends, and communicated findings to stakeholders, facilitating informed decision-making and driving organizational growth.	May'20 – May'21

SKILLS

Functional: Pandas, MySQL, Power BI, Matplotlib, Git
Technical: Python, SQL, Excel, Machine Learning, GenAI, LLM
Statistical Framework: NumPy, Pandas, SciPy, Scikit-learn and TensorFlow
Data Visualization: Tableau, Matplotlib, Power BI
Statistical Tools: Jupyter Notebook, Git/GitHub, Microsoft Office Suite, Docker

PROJECT EXPERIENCE

Assessing the Effect of Atmospheric Turbulence on Long-Range Face Recognition Accuracy <ul style="list-style-type: none">Conducted experiment-based analysis to assess biometric performance, investigating image detection under various Rytov values amidst atmospheric turbulence.Explored the influence of distance on Rytov value and turbulence on biometric degradation, deriving insights for enhanced performance.Managed extensive image, video, and metadata datasets, necessitating adept data management and visualization techniques for project coherence and efficiency.	Aug'22-May'23
Food Delivery App Data Analysis with LLM <ul style="list-style-type: none">Used LangChain with OpenAI to perform the data cleaning process of the Zomato dataset making it ready for analysis in no time.	Jan'24-Feb'24
Movie Recommendation RAG System with OpenAI Embeddings <ul style="list-style-type: none">Conducted step-by-step implementation process of utilizing embedding model: text-embedding-3-small within a Retrieval Augmented Generation (RAG) System powered by MongoDB Atlas Vector Database.	Feb'24-March'24