Purva Desai

Experienced Analytics Engineer with robust understanding of business and product dynamics

Houston, TX | LinkedIn | GitHub | Tableau

WORK EXPERIENCE

Regional IT Applications Analyst | Fugro Holdings, Houston, TX — *May 2024*

• **Managed and supported enterprise-level applications**, ensuring optimal performance and minimal downtime.

• **Developed and maintained ETL processes** to extract, transform, and load data from various sources into databases, enhancing data integration and accessibility.

• **Utilized Power Automate to streamline workflows and automate repetitive tasks,** improving operational efficiency.

• **Leveraged Python for scripting and automation**, enabling advanced data analysis and process automation.

• **Collaborated with cross-functional teams** to gather requirements, design solutions, and **implement new features.**

• **Provided training and support to end-users**, enhancing their ability to effectively utilize IT applications.

• **Led and contributed to key projects**, including **"Fusion BI" and "WIP Report,"** delivering impactful business intelligence solutions and work-in-progress reporting tools.

Junior Innovation Engineer | Fugro Marine, Houston, TX — *Sep 2023 - May 2024*

● **Led a data-driven transformation** of the SharePoint site resulting in a **25% increase in information accessibility** as measured by user search queries and document downloads. Analyzed user activity data from **500+ users** to optimize content placement.

● **Leveraged data analysis skills** to review **100,000+ data points** from test cases resulting in a **30% reduction in post-release defects**. Made **data-driven recommendations** that improved the remote operations application quality assurance process.

● **Enhanced remote operations application quality control by 15%** through analyzing test case results of over **1,000 test cases**. Identified **20+ potential trends and issues** with new features, leading to proactive bug prevention and a smoother launch.

Business Analyst | Matrix Comsec, India — Jan 2019 - July 2022

● **Led Award-Winning Face Recognition Project:** Spearheaded a cross-functional team of **9 members** to develop a face recognition system achieving a **93% accuracy rate** in user identification. Trained the algorithm using a dataset of **1000 user faces**. Implemented clustering techniques and received the "Made a Difference" award for this project's impact.

● **Increased Client Satisfaction** through in-depth interviews with **20+ clients** to gather data and deliver **15+ custom UI/UX design solutions** (Microsoft Visio) that addressed their specific needs.

● **Streamlined Data Management and Processing: Reduced processing time by 20%** by managing large datasets (**50 gigabytes/entries**) using Excel and a MySQL database, formulated business logic to optimize processes. Documented workflows for improved transparency.

● **Delivered Data-Driven Insights:** Provided comprehensive data analysis reports in response to client requests. Analyzed user details, credentials, and entry/exit times for **5 clients**, generating actionable insights to improve operations.

Innovation Intern | Fugro Marine, Houston, TX — *Jun 2023 - Aug 2023*

● Contributed to the development of **2 prototypes and proof-of-concept projects** within a diverse team of **5 experts**.

● **Achieved 25% improvement** in feasibility and potential application for client services by employing iterative testing methodologies to refine concepts.

● Partnered with developers and engineers to analyze large datasets resulting in a **10% improvement** by extracting meaningful insights like efficiency and cost savings that informed project decisions and initiatives.

● Developed **10 clear and concise reports, presentations, and user manuals** to keep **10 technical and non-technical stakeholders** informed.

● Ensured **83% comprehension** of project status through effective communication strategies.

Research Assistant (Professor Jack Zhang) | University of Houston — Sep 2022 - May 2023

● Analyzed healthcare data using Python and Machine Learning techniques.

● **Improved data accuracy by 15% by performing data cleaning and wrangling** to ensure data quality for analysis.

● Developed the front-end of the CYBER-CARE center website (link: https://uh.edu/cybercare/)

Data Science Research Intern | University of Houston, Houston, TX — May 2018 - July 2018

● Detected occupancy of chairs and desks maneuvering accelerometer where Raspberry Pi was deployed as platform.

● Collected 3D coordinate data(x,y and z) using an accelerometer which was converted to a tabular format (csv format) followed by an algorithm to operate data for detection of presence of anyone on chairs or tables.

● Installed complete hardware in the computer laboratory for a day for data collection and occupancy of chairs and tables was diagnosed for which **95% of accuracy** was achieved.

EDUCATION

University of Houston (GPA: 3.607/4.0) — Aug 2022 - May 2024
Master's in Engineering Data Science

IIM (Indian Institute of Management), Indore & Jigsaw Academy — Sep 2020 - July 2021
Integrated Program in Business Analytics

Institute of Technology, Nirma University (GPA: 8.42/10) Aug 2015 - May 2019
Bachelor of Technology in Electronics and Communications Engineering (ECE)

HACKATHONS

● Hackathon 2023, Americas Innovation (Fugro) - Team Lead (Team Nucleus) Nov 2023

Built an automated data cataloging & georeferencing system to streamline Fugro's geo-data management (Problem: Data silos, inconsistent structures). Improved data accessibility & decision-making. (Technical Skills: Database Management, Web Scraping, Data Analysis using python and visualization using Power BI, Management Skills: Leadership, Communication)

SKILLS

Programming Languages: Python (Pandas, NumPy, SciPy, Keras, PyTorch, TensorFlow, Scikit - Learn), R Programming, SQL

Machine Learning: Deep Learning, Linear and Logistic Regression, Random Forest, Decision Trees, KNN, Clustering, k nearest neighbors

Technical: Statistical Computing and Analysis, Database Management, Data Analysis and Visualization, ,Web Scraping, Big Data, Agile, Software Design, Analytics, Scrum, Sentiment Analysis, Predictive Modeling, Statistical Modeling

Tools: MySQL**,** Tableau, Microsoft Office, Microsoft Visio, Excel, JupyterNotebook, PyCharm, PowerPoint, PowerBI, JIRA, Confluence, SVN

ACADEMIC PROJECTS

Sentiment Analysis of Automobiles April 2021 - July 2021

● **Engineered and crafted the Vader Sentiment Analyzer** to discern polarity (positive, neutral, or negative) within an automobile dataset. Analysis revealed an overwhelming **75%** of consumers expressing **positivity**, with approximately **20%** exhibiting **neutrality**, and only **5%** expressing **dissatisfaction**.

● Pioneered the development of a Python script utilizing the Tweepy library to **extract** around **1,00,00 tweets**, followed by rigorous data cleaning. Subsequently, implemented advanced NLP techniques including tokenization, lemmatization, and stemming using the NLTK library.

Optical Character Recognition Using RPI Jan 2018 - May 2018

● **Innovated an algorithm that converted images containing text into a grayscale** (binarized) format, resulting in a **20% increase in accuracy** for character recognition. Led a layout analysis system to identify and separate unconnected characters, significantly improving text processing efficiency.

● **Accomplished an outstanding 95% accuracy rate** by implementing k-Nearest Neighbor classification to **identify characters and harnessing labeled data** generated by a tool to train the model. Subsequently, classified test characters using CNN-based models derived from the training data

Smart Car Parking System July 2018 - Dec 2018

● Facilitated real-time monitoring via a connected mobile app, **increasing parking efficiency by 40%,** enabled by Node MCU ESP8266 and ultrasonic sensors, accurately determining car occupancy in a parking lot, **processing data from 100,000+ distance** measurements.

● **Attained a remarkable 93% accuracy rate** by seamlessly identifying available parking spots through the mobile app, thus empowering users, thereby **preventing congestion and ensuring smooth parking operation**s**.**