Dushyant Singh Pawar

Mobile: +1 (919) 579 - 1341 | Email: dpawar4@charlotte.edu | LinkedIn | GitHub

Education:

University of North Carolina | Charlotte, NC | Master of Science in Computer Science, **Aug. 2023 - May. 2025**
Medi-Caps University | Indore, India | Bachelor of Technology in Computer Science Engineering, **Aug. 2016 - Aug. 2020**

Skills:

Programming & AI: Python *(automation, predictive modeling),* **C++** *(system optimization),* **R** *(statistical modeling, data visualization),* **TensorFlow & Scikit-**learn *(ML models, deep learning*), **NLP with spaCy** *(feedback analysis, sentiment extraction),* **Generative AI** *(LLMs, text generation).*
Data Engineering & Databases: SQL & PostgreSQL *(query optimization, real-time reporting),* **MongoDB & NoSQL** *(scalable data storage),* **Apache Airflow** *(ETL automation*), **ETL Pipelines** *(data extraction, transformation, loading).*
Cloud & DevOps: AWS *(Lambda, EC2, S3, RDS – scalable deployments, cloud infrastructure),* **GIT** *(version control, collaboration),* **Linux** *(server automation, scripting).*
Data Analytics & Visualization: Power BI & Tableau *(interactive dashboards, real-time analytics)*, **Matplotlib, Pandas, NumPy** *(data manipulation, trend analysis),* **Excel** *(financial analysis, automated reporting)*.

Experience:

Data Analyst | EdvanceSkill for Actuaries | Bengaluru, India **Mar. 2022 - April 2023**

- **Automated Grading System:** Reduced manual grading time by 40% through an automated grading system using Flask for API-based evaluations and SQLite for structured data storage, enabling real-time tracking of student progress.
- **NLP-Driven Feedback Analysis:** Increased student engagement by 25% by building an NLP-driven feedback analysis system with **spaCy**, extracting key phrases and sentiment from responses to deliver personalized, actionable feedback. Deployed on **AWS Lambda**, ensuring high scalability with minimal infrastructure costs.
- **Real-Time ETL Automation:** Improved data accuracy by 30% by designing and automating **ETL pipelines with Python, SQL, and Apache Airflow**, processing grading logs in real-time and eliminating manual data handling inefficiencies.
- **Student Performance Dashboards:** Accelerated identification of struggling students by 20% with interactive dashboards in Power BI and Tableau, integrating live SQL queries to visualize key metrics like assignment completion rates, learning gaps, and topic-wise performance.
- **Data-Driven Curriculum Design:** Enhanced curriculum design with data-driven insights by implementing **DAX measures in Power BI** to calculate custom learning performance scores, enabling educators to refine teaching strategies based on real-time analytics.

System Engineer | Tata Consultancy Services | Pune, India **Nov. 2020 - Feb. 2022**

- **Global Shipment Tracking System:** Ensured 97.5% system uptime by developing and maintaining a global shipment tracking system in Infor M3, implementing Python-based automated monitoring scripts and optimizing SQL-driven API integrations, reducing shipment delays and minimizing downtime.
- **Database Performance Optimization:** Achieved a 30% reduction in data maintenance time and significantly improved query execution speed by optimizing MySQL queries, restructuring indexes, partitioning large tables, and refactoring complex joins to support real-time reporting.
- **Cloud ERP Migration & Infrastructure Optimization:** Led infrastructure optimization for an on-prem **(Infor M3)** to **AWS Cloud ERP migration (Infor CloudSuite),** designing a scalable architecture using EC2, S3, and RDS, while optimizing backend processes with C++, ensuring seamless transition and improved system resilience.

Data Analysis Intern | Tata Consultancy Services | Indore, India **Feb. 2020 - Aug. 2020**

- **Predictive Analysis Model Accuracy:** Achieved 88.84% model accuracy in predictive analysis by analyzing financial datasets with Python (Pandas, NumPy, Matplotlib) to identify key trends and patterns, improving decision-making insights.
- **Financial Forecasting Models:** Developed financial forecasting models using scikit-learn, implementing linear regression, decision trees, and ensemble methods to predict market trends, enhancing forecasting precision.
- **Interactive Financial Data Visualization:** Enhanced financial data visualization by designing interactive Tableau dashboards, integrating SQL queries to extract key financial metrics, which streamlined reporting and improved stakeholder engagement.

Projects:

- **SPECTRE, Visual Speech-Aware Perceptual 3D Facial Expression Reconstruction from Videos:** 3D facial expression recognition, computer vision, deep learning, TensorFlow, neural networks, transformers, numpy, machine learning, visual speech recognition, AI, video analysis, facial recognition, data augmentation, perceptual analysis, video classification, OpenCV, MLOps.
- **Stock Market Prediction:** LSTM (Long Short-Term Memory), neural networks, time series forecasting, stock market prediction, financial data analysis, machine learning, deep learning, Python, hyperparameter tuning, grid search, RMSE, predictive analytics, algorithmic trading, trend analysis, regression models, feature engineering, linear Regression, Time Series analysis. .
- **Image to Calorie Calculator:** Generative AI, LLM (Large Language Model), Gemini Pro API, image processing, computer vision, deep learning, AI, image analysis, machine learning, image recognition, natural language processing (NLP), model deployment, Scikit-learn, feature extraction, FastAPI, Docker, MLflow, A/B testing, BERT, GPT, hyperparameter tuning.

Certification:

- **AWS Academy Graduate -** AWS Academy Data Engineering **Dec. 2024**