# Pranav Grandhe

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**Summary** — Analyst with experience in data analysis, reporting, and modeling. Skilled in Excel VBA, SQL, and Snowflake, with the ability to make processes more efficient and provide clear insights. Organized, detail-focused, and comfortable working both independently and in fast-paced environments. **Skills** 

**Programming Languages:** Java, Python, SQL, R, C, C++, JavaScript, HTML, CSS, Bash/Shell, VBA.

**Software Engineering & Tools:** Data Structures, Algorithms, Git, GitLab, Jenkins, Docker, Jira, Figma, Bootstrap.

Machine Learning & AI: Pandas, NumPy, Matplotlib, Seaborn, PyTorch, TensorFlow, Scikit-learn, Deep Learning, Machine Learning, Natural Language Processing (NLP), Retrieval-Augmented Generation (RAG), LangGraph, OpenCV.

**Frameworks & Web Development:** Flask, Django, FastAPI, Streamlit, Node.js, Express.js, ASP.NET, Spring Boot, Next.js, React.js, Angular, Redux, REST APIs.

Cloud & Big Data: Apache Spark, Hadoop, Apache Airflow, Apache Kafka, AWS, Microsoft Azure, Snowflake, Databricks, dbt, Parquet, ETL Pipelines, Delta Lake, Amazon S3, HDFS, Apache Hive, Data Lake Architecture.

Databases: MySQL, PostgreSQL, MongoDB.

**Data Visualization** Power BI, Tableau, Microsoft Excel, VBA, Statistical Analysis, Time Series, Regression Analytics, Predictive Analysis.

#### **Experience**

Target Agility, Data Engineer, Bengaluru, IND

Jan 2022 - Dec 2023

#### **Enterprise Data Pipeline & Query Optimization**

- Tackled reporting bottlenecks caused by poorly structured schemas and inefficient SQL queries.
- Redesigned the database layer with 3NF/BCNF normalization, applied indexing/partitioning, and optimized stored procedures, cutting query execution time by 45%.
- Partnered with frontend React and backend Spring Boot teams to expose SQL-driven APIs for real-time analytics dashboards. Improved reporting latency by 70% and delivered high-availability, production-ready SQL solutions.

#### Education

State University of New York at Buffalo, Buffalo, NY
Master of Science in Computer Science and Engineering
R.M.K. Engineering College, Chennai, TN, India
Bachelor of Technology in Computer Science and Engineering

**2024** *GPA*: 3.33 **2019** *GPA*: 8.1

#### **Projects**

#### Credit Risk Classification Web App

- Designed a machine learning model to classify credit scores (Good, Standard, Poor) for financial risk assessment. Processed and engineered features from anonymized financial data, including income, debt, and credit utilization. Evaluated six ML models; selected Random Forest for deployment based on highest accuracy (77.5%).
- Deployed a real-time credit scoring web app using Flask and HTML for lender-facing predictions. Enabled data-driven lending decisions by highlighting top risk factors like outstanding debt and inquiries.

### **Enterprise Data Engineering Workflow on Azure Cloud**

- Built an end-to-end Azure data workflow with Data Factory, Data Lake Gen2, Databricks PySpark, Synapse, and Power BI for governed ingestion, transformation, and analytics.
- Automated pipelines reduced manual effort by 90% and processing time by 60%; external Synapse tables powered interactive dashboards for real-time insights. Integrated Azure Key Vault for secret management and leveraged Managed Identity to simplify secure access to storage and analytics services.

## **NYC Food Inspection Data Pipeline**

- Loaded and cleaned 200K+ NYC food inspection records using Pandas, handling missing values, inconsistent column names, and date formats. Designed a star schema with 1 fact table and 5+ dimension tables (restaurants, dates, violations, cuisines, boroughs).
- Built and executed ETL pipelines to transform raw data into structured tables and stored results in a SQLite database. Generated plots with Matplotlib to visualize inspection trends, grade distribution, and average hygiene scores by cuisine and borough.

## Twitter Data Pipeline using Apache Airflow

- Orchestrated a scalable ETL with Airflow and Docker on AWS EC2 for continuous ingestion and durable storage in Amazon S3.
- Improved processing efficiency by 35% and deployment speed by 30% with modular DAGs and containerized operators. Achieved 99.9% data availability; reduced data retrieval time by 25% through partitioned layouts and metadata indexing.

#### **Certifications**

- Udemy Practical Database Course, & Python for Machine Learning with NumPy, Pandas & Matplotlib.
- IoT Applications using Raspberry Pi, National Small Industries Corporation