# PREET MODI

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## EDUCATION

**Master of Science in Data Science** — Aug 2022 - May 2024
Indiana University Bloomington (Luddy & Kelley School of Business) | **GPA: 3.85/4** — Bloomington, Indiana
Relevant Coursework: Data Mining, Applied Algorithms, Software Engineering, Machine Learning

**Bachelor of Technology in Information Technology** — Aug 2018 - May 2022
Dharmsinh Desai University | **GPA: 4/4** | CSI-President — Gujarat, India

## TECHNICAL SKILLS

**Languages:** Python, SQL, R, C++, React JS, Java
**Databases:** Azure, AWS, GCP, MySQL, SQL Server, PostgreSQL, NoSQL, Oracle, EC2, T-SQL
**Data Science :** NumPy, Pandas, Scikit-learn, Tableau, Power BI, Spark, Databricks, Salesforce, TensorFlow, Fabric
**Statistics:** SAS, Predictive Modeling, Regression, Classification, Time Series Analysis, Hypothesis Testing, Stata
**Other Tools:** Copilot Studio, Dynamics 365, SAP, PowerApps, Git, ISO, ERCOT, Endur, UI/UX, Allegro, GIS

## WORK EXPERIENCE

**AI & Data Engineer** — Sept 2024 - Present
CenterPoint Energy (TSG) | *AI Agents, Azure Fabric, OpenAI, Claude, BigQuery, Databricks* — Houston, Texas

- Built a **Medallion architecture** with **Databricks** and **Azure Data Factory** to integrate **RMIS, ETRM & LMS** data for scalable analytics and AI workloads.
- Developed **AI agents with Microsoft Copilot Studio** and integrated them into **Power Apps**, automating workflows with **Power Automate & Cloud Flows** and improving operational efficiency.
- Orchestrated **Python ETL pipelines**, **REST APIs**, in **GCP BigQuery** workflows and cloud runs to migrate **Riskonnect and Intelex** data for utility Safety, Risk, and Quality Compliance analytics.
- Designed **Power BI** dashboards with **DAX** and **RLS** to track KPIs for **grid resilience**, risk and operational safety.

**Associate Data Scientist** — Aug 2022 - Sept 2024
Indiana University Bloomington | *Power BI, SQL, IBM Cloud, Docker, Data Visualization* — Bloomington, Indiana

- Analyzed data, processed large datasets (>10M records) and created novel visualizations for **Carnegie Classification.**
- Built interactive visualizations and analytics for the **American Council on Education**, driving data-informed decisions.
- Served as **Associate Instructor** for **Big Data Management** course, conducting labs on **Azure & GCP** for 90 students.

**Data Visualization Specialist Intern** — May 2023 - Aug 2023
Sacoma Specialty Products | *SQL, Epicor, Redshift, SAP, MySQL, Quicksight, Alteryx* — Edinburgh, Indiana

- Integrated **ERP** systems with **AWS**, designed databases, and implemented BAQs to ensure seamless data migration.
- Executed queries in **SQL** and deployed a **Random Forest predictive model** to forecast manufacturing orders in ERP.
- Built **Dashboards** to visualize **key performance indicators (KPIs)**, boosting supply chain efficiency by 20%.

## PROJECTS

**GenAI Power Trading & Risk Copilot (ERCOT)** | **Live** | *Python, Pandas, Streamlit, Plotly, Dash, Claude Opus 5.5*

- Built a **GenAI-powered mini-ETRM** in **Python** using the **ERCOT Public API** (token auth, paging, retry) to ingest **HB_Houston DAM prices** and generate DST-aware hourly deliveries.
- Developed **MtM P&L**, net position and **stress-test** engines (price shocks, evening-ramp spikes) with forward-price proxy
- Implemented **Historical, Parametric and Monte Carlo VaR** with Expected Shortfall on 90 days of live DAM history.
- Deployed a **Streamlit** dashboard with a **LLM copilot** (rule-based fallback) explaining position, P&L and risk exposure.

**High Energy Incident Forecasting and Safety PowerApp** | *Python, Power Apps, Dataverse, BigQuery, Scikit-learn*

- Developed a **Safety PowerApp (canvas)** with a **Copilot Studio AI Agent** for safety risk analysis and insights
- Integrated **safety and geographic data** into **Dataverse** through dataflows to forecast high-energy incident risks at field
- Designed **Power BI** dashboard with **Power Automate** alerts and custom safety metrics for monitoring and reporting.

## CERTIFICATIONS

**ETRM** Energy Markets, Trading, Risk and Systems
**Anthropic** Claude Code in Action
Microsoft **Power BI** Data Analyst
**OpenAI** Agents and Workflows
IBM **Data Science** Professional
HackerRank **SQL & Python** 5-Star Coder