

## Zain Adhami

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Senior Data Analyst and BI Developer with experience building cloud based analytics, data pipelines, and applied AI/ML forecasting models on large scale datasets. Proven track record translating complex data into actionable insights for pricing, forecasting, and product decisions by leveraging SQL driven data models, Python based machine learning (XGBoost, ARIMA), AWS pipelines, and enterprise BI tools.

### Education

#### University of Michigan

Master of Applied Data Science. GPA: 3.923

Relevant Coursework: AI/ML Learning, Data Mining, Optimization, Information Theory, and Applied Statistics

Ann Arbor, MI

Jan. 2027

#### University of Illinois at Urbana-Champaign

Bachelor of Science in Integrative Biology

Urbana, IL

Jan. 2019

### Skills

**Programming & Analytics:** Python (Pandas, NumPy, Scikit-learn, Altair), SQL (PostgreSQL, MySQL), R

**Data Visualization & BI:** Power BI (DAX, Power Query), Tableau, Excel (Power Query, PivotTables)

**Data Engineering & Platforms:** AWS (S3, Athena), Snowflake, dbt, Apache Spark

**Tools & Development:** Jupyter Notebook, Bash, Git/GitHub, Gherkin (BDD)

**Analytical Techniques:** Statistical Analysis, Regression Modeling, Feature Engineering, Data Cleaning, Visualization Pipelines

### Projects

**NFL Rookie Performance Predictor:** Built a regression model using **Python (Scikit-learn, Pandas)** to forecast rookie success from historical NFL and college data; visualized outcomes with **Altair** dashboards.

**Strava Data Dashboard:** Created an **interactive Altair visualization** analyzing workout performance and GPS paths for optimization insights.

**EPA Automotive Trends Analysis:** Conducted **EDA** on EPA efficiency data (2010–present) to uncover **fuel economy and CO<sub>2</sub> emission** trends across manufacturers.

### Experience

#### Skyway Concessions Co.

##### Sr. Data Analyst/BI Developer

Chicago, IL

Nov. 2022 – Current

- Engineered **SQL based data pipelines and data models** leveraging **AWS S3 and Athena** to integrate millions of tolling and transaction records across multiple systems, improving data reliability and reducing reporting latency by **35%**.
- Built **Python (Pandas, NumPy)** workflows to automate data cleaning, validation, and transformation, cutting manual processing time by **~20%** and enabling scalable analytics.
- Designed and maintained **enterprise Power BI dashboards** backed by DAX calculations and Power Query (M) transformations, for revenue, traffic, lane utilization, and payment behavior, driving data informed decisions.
- Developed a **prototype ML forecasting system** using **XGBoost and ARIMA**, combining traffic prediction with elasticity based revenue modeling; improved forecast accuracy by **22%** and provided finance with actionable, model driven pricing insights.
- Delivered **recurring analytics, dashboards, and ad-hoc reporting** to executive leadership (CEO, VP of IT, Director of Finance), providing visibility into transaction performance, revenue trends, and operational KPIs used for strategic decision making.
- Implemented **data quality checks and validation rules** across high volume transaction datasets, reducing recurring data issues and improving accuracy and reliability of executive and financial reporting by **~15%**.
- Managed delivery of multiple concurrent analytics initiatives, coordinating priorities and timelines across finance, operations, and technology teams to ensure on time delivery of dashboards, models, and reporting artifacts.

#### Supernova Technologies

##### Sr. Data Analyst

Chicago, IL

May 2022 – Nov. 2022

- Partnered with product teams to **validate predictive financial models** through backtesting, scenario generation, and simulation analysis supporting suitability and risk based lending decisions.

- Performed **complex SQL based data analysis and cross system validation** (Oracle, PostgreSQL, MSSQL) to ensure accurate financial inputs and reduce data discrepancies by **~20%**.
- Developed **Power BI dashboards** leveraging SQL, Power Query (M), and DAX to model performance metrics and risk indicators, delivering actionable insights that improved decision making for product and engineering teams.
- Automated data comparison, reconciliation, and transformation workflows using SQL and Python, **strengthening data pipelines feeding analytics and ML driven model evaluation**.

Allvue

Chicago, IL

Data Analyst

Aug. 2020 – May 2022

- Designed and authored **20+ Gherkin based test scenarios** to validate data transformations and workflows, improving the reliability of downstream analytics and ML pipelines.
- Built **Tableau dashboards** to visualize financial and operational data, supporting data validation and trend analysis for multiple stakeholder teams and reducing manual reporting effort by **~15%**.
- Conducted **SQL driven data profiling and integrity checks** on large financial datasets, identifying issues that reduced data quality defects by **~15%**.
- Developed and maintained **SOPs and technical documentation** for data validation processes, standardizing workflows and reducing onboarding time by **30%**.
- Partnered with engineering and product teams to translate business rules into testable data requirements, increasing validation coverage and reducing recurring data issues in downstream analytics workflows.