

# Piyusha Sayal

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Data Engineer with 3+ years of experience architecting scalable data pipelines, orchestrating ETL workflows, and elevating data reliability across cloud ecosystems. Proficient in PySpark, Airflow, SQL, and AWS, with expertise in data modelling, pipeline automation, and distributed processing. Recognized for delivering high-quality, production-ready data solutions that accelerate analytics, improve operational efficiency, and support data-driven decision-making.

## SKILLS & CERTIFICATIONS

**Programming Language & Methodologies:** R, Python, SQL, C++, SAS, Stata, SDLC, Agile, Waterfall

**Data Analytics & Visualisation Tools:** Power BI, Tableau, Alteryx, Excel, NumPy, Pandas, Matplotlib, SciPy, Scikit-learn, Seaborn

**Big Data & ETL Tools:** Hadoop, MapReduce, Hive, Apache Spark, PySpark, Snowflake, SSIS, Matillion, Airflow, Informatica

**ML Algorithm:** Regression, Decision Trees, Supervised Learning, Unsupervised Learning, K Means, SVM, Random Forests, Naive Bayes

**Database & Cloud Technologies:** MongoDB, MySQL, SQL Server, PostgreSQL, AWS, Azure, GCP, Databricks

**Business Analysis & Data Storytelling:** Problem-Solving, Stakeholder Management, Conflict Resolution, KPI Monitoring, Strategic Planning

**Certifications:** AWS Certified Data Engineer, Academic Scholarship (NJIT), Gen AI (BCG), Big Data (IBM), Data Analytics (Accenture, KPMG)

## WORK EXPERIENCE

### Optimove

New York City, NY

*Customer Data Engineer*

August 2024-Present

- Analyzed customer data from ETL pipelines (SQL, Python, Airflow) to deliver actionable insights, cutting data delivery time by 40%..
- Partnered with cross-functional teams to translate business requirements and resolve 200+ data quality issues for 10+ clients.
- Developed data-quality KPIs to resolve 50+ critical issues, presenting findings to stakeholders to drive a 30% reduction in downtime.

### New Jersey Institute of Technology

Newark, NJ

*Teaching Assistant - Computer Systems and Network Security*

September 2023-May 2024

- Streamlined inventory and distribution for 100+ lab items, reducing setup time and resolving 50+ software and equipment issues.
- Curated and designed 40+ instructional slides for 150+ students, enhancing clarity and improving student learning outcomes by 30%.

### Business Development Analyst (Autonomous Truck Driving Model)

August 2023-May 2024

- Conducted comprehensive analysis of 10+ industry peers to identify market trends, leading to the addition of 3+ new truck features.
- Led the National Science Foundation Regional I-Corps as the Entrepreneurial Lead, conducted 20+ industry leader interviews.
- Addressed customer needs and operational inefficiencies; made strategic recommendations to shift to semi-autonomous trucks.

### Data Operations Analyst

June 2023-August 2023

- Executed a comprehensive switch of insurance providers, leading unit acceptance testing through all 3 stages of implementation.
- Formulated 50+ scripts for NJIT's DegreeWorks platform, improving course enrollment efficiency and reducing scheduling errors.
- Engineered the ERD for the summer program students' database, improving data retrieval speed by 25% and reducing redundancy.

### Financial Data Analyst (CSR Report and Financial Performance Analysis)

March 2023-June 2023

- Analyzed large-scale ESG datasets for 200+ companies, using statistical methods to identify trends, and insights in CSR reporting.
- Categorized 1000+ filtered keywords and assessed the polarity, facilitated focused analysis and generated targeted insights.
- Designed 40+ interactive dashboards using Power BI and Tableau, monitoring KPIs and financial impacts for executive stakeholders.

### Faces Canada

India

*Supply Chain Data Analyst*

January 2021 – July 2021

- Analyzed ERP data for 500+ orders, identified order inaccuracies and implemented a centralized inventory management system.
- Developed automation strategies that streamlined warehouse operations, and cut processing time by over 50 hours monthly.
- Overhauled order fulfillment process reducing holding costs by 15% through precise packing procedures and inventory tracking.

## EDUCATION

### New Jersey Institute of Technology

Newark, NJ

*MS in Information Systems, specialization in Data Analytics (GPA: 3.95/4.00)*

September 2022-May 2024

## PROJECTS (Access projects - [Github](#))

- PySpark - Pipeline for Flight Delay Prediction:** Engineered a predictive model, achieving 85% accuracy, and deployed ETL pipelines with PySpark to forecast flight delays, enhancing decision-making
- National Science Foundation Website:** Built a responsive EV charging station website with HTML, CSS, and JavaScript; ensured accessibility and integrated analytics for user behavior tracking.
- SpaceAlpha- Bridging Galaxies with Tech:** Integrated web platform that harnesses Streamlit, MongoDB, Redis, Rust, Google Cloud, and AI to provide a centralized hub for space technology information.

## **LEADERSHIP EXPERIENCE & ACHIEVEMENTS**

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**Hackathon Victories:** Successfully led 4 member teams to win multiple hackathons, showcasing technical expertise and strategic acumen.

**Marketing Leadership:** Served as Marketing Head for 4 years, driving successful sponsorships for the annual Techno-Cultural Fest.

**Conference Organization:** Spearheaded E-Summit 2022, collaborating with over 20 industry leaders to boost participant engagement.