# RAJ KUMAR MANALA

## Data Engineering & BI Analytics Professional

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## Professional Overview

Data Engineering & BI Analytics Professional with 5+ years of experience designing scalable ETL pipelines, managing SQL/NoSQL databases, and implementing cloud solutions with Azure, and AWS Proficient in Python, PySpark, Java, and SQL, with experience in real-time data processing, data warehousing, and big data tools such as Databricks and Apache Spark. Skilled in creating impactful visualizations using Power BI and Tableau and automating workflows with CI/CD pipelines and GitHub.

## Core Competencies Toolset

Programming & Scripting: SQL, Python, Spark SQL, Py-Spark, PowerShell.

**Big Data & Data Engineering:** Apache Spark, ETL Pipelines, Talend ETL, Airflow, Delta Live Tables, Unity Catalog, Data Modeling, Data Integration, Data Warehousing, Data Extraction, Data Quality, Schema Design, Data Mining, Big Data.

Cloud Technologies: Azure (Data Factory, Synapse Analytics, Databricks, Key Vault, Cosmos DB, Fabric, Purview, VMs, VNets, App Services, AVD), AWS (EC2, S3, RDS, VPC, Lambda, Glue, Terraform), Snowflake

Databases & Systems: MS SQL Server, PostgreSQL, MongoDB, Oracle SQL Developer, Database Systems, Linux,

MacOS, Windows

Data Visualization Tools: Microsoft Power BI, Tableau, Data Visualization

## Impactful Contributions

### **ETL Solutions Implementation**

Implemented ETL solutions improving processing efficiency and scalability by 40%.

### **Optimized Data Pipeline**

Redesigned a data pipeline handling over 100 TB of data, improving performance.

### Power BI Dashboard Creation

Designed and developed interactive dashboards, enhancing data visualization and decision-making processes.

## **Enhanced Database Efficiency**

Increased database efficiency by 50% by optimizing data management strategies.

### **Designed Scalable Data Models**

Created and optimized data models and designed schemas to support scalable data architecture.

## System Deployment & Imaging

Led deployment of Windows 11 and macOS across university systems, ensuring seamless integration with IT

### Academic Milestones

**Concordia University Chicago**, River Forest, Illinois Master's in Computer and Information systems

Aug 2023 – Dec 2025

**Swami Vivekananda Institute of Technology**, Hyderabad, TS, India Bachelor's in Electronics and Communication Engineering

Aug 2015 - Jan 2020

#### Certifications

- Microsoft Azure Data Engineer Associate
- Microsoft Power BI Data Analyst Associate
- AWS Certified Developer Associate
- AWS Certified Cloud Practitioner

- Microsoft Azure AI Fundamentals
- Microsoft Azure Data Fundamentals
- Databricks Generative AI
- Databricks Fundamentals

• Career Timeline

## Cloud & Systems Support Engineer

Concordia University Chicago

Jul 2024 - Present River Forest, Illinois

- Perform installation, imaging, configuration, and deployment of Dell desktops, laptops, and iMacs, ensuring compliance with organizational IT policies.
- Troubleshoot hardware, software, and network issues, minimizing downtime and enhancing operational efficiency.
- Maintain network infrastructure, including routers, switches, and firewalls, while implementing security measures such as VPNs and intrusion detection systems.
- Manage IT asset tracking and documentation using SolarWinds IT Service Desk, streamlining IT support workflows.

### Graduate Technical Assistant in IT Systems & Cloud

Aug 2023 - Jul 2024

Concordia University Chicago

River Forest, Illinois

- Provided comprehensive IT support at CougarNet Help Desk, assisting students, faculty, and staff with hardware and software troubleshooting, and working with Administrative Information Systems (AIS), Ellucian Banner, and Blackboard Learn to ensure smooth academic and administrative operations.
- Managed the setup and maintenance of audiovisual equipment for classes and events while offering guidance for Concordia Connect, the university's online portal.

Big Data Engineer

Sep 2022 - Aug 2023

LTI Mindtree - Microsoft Vendor

Hyderabad, India

- Designed and implemented Machine Learning components to enhance predictive analytics and decision-making.
- Leveraged AWS, Hadoop, and Python for data processing and analysis, delivering actionable insights to stakeholders.
- Extracted and transformed structured and unstructured datasets, improving data usability with advanced tools like Snowflake and Databricks.
- Developed analysis reports and collaborated with multidisciplinary teams to align strategies and foster impactful outcomes.
- Conducted in-depth analyses of customer, competitor, and market data to identify growth opportunities, optimizing product and service strategies and enhancing advertising effectiveness.
- Designed and implemented data management strategies that improved database efficiency by 50%, including removing redundant data and optimizing filtering processes.
- Created interactive dashboards and impactful visualizations in Power BI, translating complex datasets into clear, actionable insights that guided strategic decision-making.
- Applied advanced statistical methods and data mining algorithms to uncover trends and patterns, contributing to datadriven strategies and fostering collaboration with cross-functional teams.

#### Cloud Data Engineer

Apr 2020 - Sep 2022

Mindtree – Microsoft Vendor

Pune, India

- Orchestrated seamless data workflows in Azure Data Factory, designing and managing efficient ETL pipelines to optimize data integration processes.
- Developed and automated ETL solutions using Apache Spark and Azure Databricks, significantly improving data processing efficiency and scalability.
- Using Python and SQL to perform complex data analysis, ensure data accuracy, and perform data-driven testing, driving data integrity and actionable insights.
- Implemented and managed Delta Live Tables within Azure Databricks, enabling real-time streaming and batch data processing for timely analytics.
- Created comprehensive analysis reports with Power BI and Microsoft Office, transforming raw data into meaningful business insights for key stakeholders.