

# Md Islam

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## Work Experience

### **Data Analytics Engineer**

Tata Consultancy Services (TCS)

June 2021 – September 2023

- Led a high-impact migration from Oracle to SQL Server, reducing database errors by 30% and converting 1,000+ PL/SQL scripts to T-SQL, streamlining system performance
- Enhanced QA productivity by 25% with high-performance SQL queries, validating 10M+ rows of data with 99.9% accuracy
- Drove \$2M in cloud adoption by delivering a POC on Azure Kubernetes Service, providing data-driven insights that shaped client cloud strategies
- Increased business intelligence accuracy by 40%, leveraging advanced tools (NumPy, Pandas, Power BI, SQL) to deliver actionable insights that accelerated decision-making
- Improved stakeholder engagement by 20% and cut reporting time by 30% through interactive Power BI and Python (Matplotlib) dashboards, optimizing project tracking

## Technical & Computer Skills

**Core Competencies:** Data Analysis, Data Visualization, Data Modeling, ETL/ELT Pipelines, Data Transformation, SQL Query Optimization, Python Programming (NumPy, Pandas, Matplotlib, Seaborn), Power BI Development, DAX, Azure Fundamentals, Relational Database Design, Object-Oriented Programming, Agile/Scrum Methodologies

**Programming Languages:** Python, SQL, HTML, CSS

**Software/Tools:** Power BI, Tableau, Excel (Advanced Formulas, PivotTables), SQL Server Management Studio, Visual Studio, Jupyter Notebook, PyCharm, Git, GitHub, PowerPoint, Microsoft Word

**Databases:** Microsoft SQL Server, Oracle Database

**Cloud Platforms:** Microsoft Azure

**Operating Systems:** Windows

## Engineering Projects

### **ETL and Analysis: Sleep Deprivation and Cognitive Performance**

Completed February 2025

- Engineered an ETL pipeline to analyze the impact of sleep deprivation on cognitive performance, enabling data-driven insights into mental and emotional well-being
- Leveraged Python, pandas, and SQLite for data cleaning, normalization, and feature engineering, and visualized insights with matplotlib and seaborn to uncover sleep-cognition relationships

### **Premier League Statistical Analytics: Data-Driven Team Insights**

Completed January 2025

- Developed a Python and SQL-based data pipeline to analyze Premier League performance, automating ETL workflows and generating 40+ features (e.g., xG efficiency, form trends) for actionable insights
- Improved predictive accuracy by 12% and reduced reporting time by 85% via automated dashboards, enabling data-driven decisions on player strategy and operations

### **Random Data Generation and RESTful API for Data Applications**

Completed December 2024

- Implemented a Python-based solution using Flask, Faker, and pandas to generate synthetic datasets, streamlining the process of creating test data for analytics and machine learning workflows
- Architected a RESTful API to enable seamless data retrieval, updates, and deletions, improving accessibility and supporting scalable data-driven applications

### **HR Data Analytics Dashboard**

Completed April 2023

- Developed an automated HR Data Analytics Dashboard in Power BI, streamlining HR processes and improving data accessibility
- Defined KPIs and visualized employee working preferences and wellness metrics using DAX, providing insights to enhance workforce engagement and productivity

**Integrated Analysis of Transaction, Product, and Demographic Data** Completed January 2023

- Utilized Python (pandas) for merging and analyzing large datasets, focusing on feature engineering to enable time-based insights and deeper demographic segmentation
- Enhanced customer segmentation and decision-making, leading to actionable insights that optimized marketing strategies and improved customer targeting

**To-Do List Web Application with RDBMS Integration** Completed November 2020

- Built and deployed a web application to help users organize daily tasks using a Relational Database Management System (RDBMS), improving task management efficiency
- Constructed an ER-Model, translated it into a relational schema, and implemented the database using SQL, enabling seamless task creation, updates, and management

**Education & Certifications**

Wayne State University, Detroit, MI  
Bachelor of Science in Computer Science

August 2017 – May 2021  
GPA: 3.6

AZ-900 Microsoft Azure Fundamentals  
AZ-104 Microsoft Azure Administrator

August 2022  
October 2022