

# Rijul Bir Singh

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## Education

University of Florida, Gainesville, USA

Aug 2024 – May 2026

*Master of Science in Computer Science*

Delhi Technological University, Delhi, India

Aug 2017 – May 2021

*Bachelor of Engineering in Software Engineering*

## Skills

**Languages:** SQL (advanced), Python, Java, Go, C/C++, JavaScript, Pandas, NumPy, HTML, CSS

**Data Engineering:** ETL Pipeline Design, Data Modeling, Apache Airflow, Database Optimization

**Databases & Storage:** PostgreSQL, MySQL, MS SQL Server, MongoDB, Snowflake, Data Warehousing

**BI & Analytics:** PowerBI, IBM Cognos, Tableau, Data Visualization, Statistical Analysis

**Cloud & Tools:** AWS, Azure, AEM, Docker, Git, CI/CD Pipelines, Django

## Experience

Technical Consultant | **Adobe**

Apr 2023 – Jul 2024

**Customer Engineering Cloud Solutions Platform Engineering**

- Developed and tested hotfixes for Adobe Experience Manager (AEM), resolving 10–15 critical issues per release cycle, including **thread leaks** and **Oak indexing failures**; analyzed thread and heap dumps to troubleshoot performance and security issues impacting over **100** enterprise clients.
- Developed features using JCR and OSGi components for AEM's **Multi-Site Manager** and **translation tools**, improving experience for **1M+** users with increased functionality.
- Reduced unresolved customer issues by **82%** through detailed bug validation, significantly boosting product reliability and user satisfaction.

Software Development Engineer | **Optum, United Health Group**

Jun 2021 – Apr 2023

**Data Engineering, Data Transformation, Business Intelligence**

- Designed and scheduled ETL workflows using **Apache Airflow**, automating the movement of structured claims and provider data into a centralized reporting DB, which improved data freshness and reduced pipeline **failures by 30%**.
- Built and maintained **Power BI** dashboards to track **provider performance** and **patient engagement metrics**, reducing **manual reporting effort** by **35%** and improving **turnaround time** from **1 day to 4 hours**.
- Created P&L reports and dashboards using **PowerBI** and **Cognos**, translating financial metrics into actionable insights.

## Projects

**OHBI: Optum Health BI** | *PowerBI, Python, SQL, Snowflake*

Jul 2021 - May 2022

- Built a data pipeline extracting financial data from **multiple sources**, transforming it using **SQL** in **Snowflake**, and loading it into a **dimensional model**.
- Created interactive **Power BI** dashboards with **drill-down capabilities** and **custom DAX measures** for real-time provider performance visibility.

**Campus Cupid** | *React, Node.js, MongoDB, Express* [\[GitHub\]](#)

Feb 2023 - Apr 2023

- Built a **full-stack dating app** using the **MERN stack**, implementing secure **authentication**, **profile management**, and a **matching algorithm**.
- Created a **responsive UI** with React and implemented **RESTful APIs** enabling real-time notifications with **95% uptime**.

**Emotion-Based Music Recommender** | *Python, CV, ML* [\[GitHub\]](#)

Mar 2025

- Built a real-time emotion detection system using OpenCV and TensorFlow that analyzes facial expressions and recommends Spotify playlists matching the user's mood.
- Trained a CNN on the FER2013 dataset to classify 7 emotions and integrated with Spotify API to fetch relevant playlists.

## Publications and Certifications

**Adobe Experience Manager Business Practitioner Professional Certification**

Jan 2023

**Movie genres and beyond: Analytical survey of classification techniques**

*Int'l Conference on Trends in Electronics and Informatics (IEEE)* [\[IEEE\]](#)

Jun 2021

- First-authored a paper implementing **Bi-directional LSTMs and CNNs** to classify movies from posters and trailers using the **IMDB Dataset (50K samples)**.
- Evaluated **resNet50**, **VGG16**, and **DenseNet169** models, with DenseNet169 achieving **91% accuracy**.