Rijul Bir Singh

✉ rijul300@gmail.com | 📱 +1(352)682-9732 | ⓞ github.com/rijul21 | 🔗 linkedin.com/in/rijul-bir-singh

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 **Java-based hotfixes** for Adobe Experience Manager (AEM), resolving 10–15 critical issues per release cycle, including thread leaks, **Oak indexing** failures; analyzed **thread and heap dumps** to address performance and security issues affecting 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

- Engineered **ETL pipelines** using **Python** and **SQL** to process 500+ million healthcare claims daily, reducing processing time by **40%** while maintaining HIPAA compliance and data integrity standards.
- Automated **claims ingestion workflows** using Python and SQL for batch processing of insurance claims (millions of records), improving **processing accuracy by 25%** and reducing turnaround time from **2 days 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**.