Rahul Middha

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SUMMARY

Results-oriented ML/Data Engineer with over 6 years of experience developing machine learning models and scalable data pipelines. Proven expertise in leveraging cloud services for optimized data processing and creating impactful dashboards. Known for collaborating with cross-functional teams, mentoring peers, and driving data strategy. Dedicated to solving real-world problems using ML, focusing on search relevance, recommendations, fraud detection, and time-series forecasting. Experienced in microservice-based architecture, scalable AI applications, and secure software development.

TECHNICAL SKILLS:

- **Programming**: Python, NumPy, Pandas, Scikit-learn, SQL, Java
- **ETL Tools:** Informatica, dbt, Airflow
- **Visualization:** Tableau, Power BI
- **ML Tools:** TensorFlow, PyTorch, Pinecone, GPT-4
- **Cloud Platforms:** Google Cloud Platform, Azure, AWS, Snowflake
- **Other Tools & Technologies:** Databricks, Azure Synapse, Docker, Kubernetes, SonarQube, JUnit, Mockito

EDUCATION

MASTER OF SCIENCE – COMPUTER SCIENCE **2017**
The University of Texas at Arlington, USA

BACHELOR OF ENGINEERING – INFORMATION SCIENCE **2014**
Visvesvaraya Technological University, India

PROFESSIONAL EXPERIENCE

CMiC TORONTO, CANADA
Data Engineer L3 *July 2023 – June 2024*

Tech Stack: Python, Scikit, NumPy, Pandas, TensorFlow, Oracle, AWS

- Designed, developed, and deployed machine learning models focusing on recommendations and time-series forecasting, achieving a 25% increase in model accuracy using TensorFlow and Scikit.
- Developed LLM-powered chatbots that extracted key information from construction documents, reducing query response time by 40%.
- Used Pinecone as a Vector Database to store Hugging Face embeddings which improved accuracy and faster responses.
- Applied clustering techniques to identify similar projects, enhancing resource allocation and planning efficiency.
- Led the creation of scalable ML services and microservice architecture for generative AI solutions using GPT-4, reducing deployment time by 35%.
- Engineered ML models for project cost forecasting, improving financial accuracy.
- Integrated AI tools with existing systems, boosting operational efficiency by 25%.
- Applied ML Ops for reliable deployment and mentored junior engineers.
- Conducted secure code reviews and threat modeling for machine learning applications, reducing security vulnerabilities by 15%.

AFFINE BENGALURU, INDIA
Consultant Data Engineer *January 2022 – July 2023*

Tech Stack: GCP, AWS Glue, BigQuery, RedShift, Python, SQL, Power BI

Social Media Datawarehouse Project

- Designed and implemented real-time data pipelines using AWS services, accelerating processing by 30% and reducing latency by 25%.
- Created ETL scripts in Databricks for complex data transformations, enhancing retrieval speed.
- Led ML Solution Pods to develop production-ready AI applications, focusing on fraud detection and anomaly detection, achieving a 40% reduction in false positives.
- Managed data profiling and data QA, resulting errors by 25% and improving data quality.

- Identified new opportunities and insights from the data to improve models and projected ROI of proposed modifications.

Cosmos DB Data Views and Pipeline Creation Project

- Developed Cosmos DB data views for popular metrics, improving data accessibility and accuracy.
- Reduced processing time by 30% through efficient data pipelines using Azure Data Factory, Azure Databricks, and Synapse Analytics.
- Increased stakeholder satisfaction by 25% by creating informative and visually appealing dashboards in Power BI.
- Improved team skills and productivity by 40% through mentoring and training sessions.
- Collaborated closely with engineering and ML platform teams to ensure adoption of best practices in building and deploying scalable ML services.

GLOBALSOFT INC BENGALURU, INDIA
Software Engineer *August 2018 – January 2022*

Tech Stack: AWS, RedShift, Snowflake, Informatica, Python, SQL

- Developed ETL pipelines in Informatica, ensuring data integrity and security, reducing data discrepancies by 30%.
- Automated batch ETL processes in Airflow, reducing manual workload by 40% monthly and increasing operational efficiency.
- Utilized full stack GCP development for scalable AI solutions which improved daily operations.
- Modeled and shifted custom SQL queries into dbt for creating materialized views.
- Implemented large-scale data warehousing programs on Snowflake Cloud and GCP Big Query, reducing storage costs by 20%.
- Enhanced application deployment efficiency by 80% using Docker.
- Designed and developed complex aggregate, join, lookup transformation rules using Informatica PowerCenter tools.

PROFESSIONAL CERTIFICATES

Associate Cloud Engineer - Google Cloud
Issued Jun 2023 – Expires Jun 2026
Credential ID 75891934