

Uma Maheswari K S

 [LinkedIn](#) |  umakandra24@gmail.com |  (978) 848-7587

Profile

Experienced Data Engineer and Cloud Engineer with a strong foundation in designing, building, and optimizing scalable data architectures and cloud infrastructure. Skilled in developing and maintaining robust ETL data pipelines, managing relational and non-relational databases, and implementing data warehousing solutions such as Redshift and Snowflake. Proficient in cloud platforms like AWS and Azure, with expertise in infrastructure-as-code tools like Terraform and CloudFormation. Adept at scripting with Python to automate data processing and cloud operations. Demonstrated ability to collaborate with cross-functional teams to ensure data integrity, security, and performance across data systems and cloud environments. Strong problem-solving skills with a focus on optimizing cloud infrastructure, data workflows, and ensuring alignment with organizational goals.

Technical Skills:

Programming Languages: Python, SQL

Data Engineering Tools: Apache Kafka, Apache Spark, Hadoop, Talend, Airflow

Data Technologies: Redshift, Snowflake, MongoDB, MySQL, PostgreSQL, Elasticsearch

Cloud: AWS (EC2, S3, Lambda, VPC, Cloudwatch)

Infrastructure-as-Code (IaC): Terraform, CloudFormation

Database Technologies: SQL, NoSQL (MongoDB, Cassandra)

CI/CD Tools: Jenkins, GitLab CI, AWS CodePipeline, Azure DevOps

Automation Tools: Ansible, Lambda

Cloud Security: IAM, Security Groups, VPC

Monitoring & Logging: CloudWatch, Azure Monitor, Splunk

Design Patterns: Microservices, Event-Driven Architecture, Serverless, Singleton, Factory

Testing Tools: JUnit, TestNG, Mockito, Pytest, Postman, JMeter

DevOps Tools: SonarQube, GitHub, Jenkins, Maven, Kubernetes

SDLC Methodologies: Agile, Scrum, Waterfall, Lean

Experience

Academic Data Engineer - Graduate Student Assistant
Rivier University, Nashua, NH

Feb 2023 – Present

- Led data-driven research projects, optimizing databases like MySQL, PostgreSQL, for academic use cases.
- Developed and managed AWS infrastructure (EC2, S3, Lambda, VPC) for academic cloud-based applications and data storage.
- Designed data pipelines for cleaning, transforming, and analyzing datasets in Python, enhancing research workflows.
- Collaborated with faculty and researchers to identify data needs, ensuring data solutions were aligned with research goals.
- Integrated data sources and built data models to support academic research in machine learning and data science.
- Developed academic dashboards and visualizations for research presentations, enabling data insights for university projects.
- Worked with research teams to optimize data processes using containerization (Docker) and orchestration tools (Kubernetes).
- Automated routine data tasks using Python, reducing manual intervention in research workflows.

Associate Consultant - Data Engineer
Allstate Pvt Ltd, Bangalore, India

Mar 2021 – Jan 2023

- Automated end-to-end claims and policy data processing workflows using Python, streamlining business operations.
- Designed and implemented cloud infrastructure (AWS) for secure data storage, reducing risks associated with sensitive policy information.
- Developed and maintained scalable microservices for claims adjudication and policy management systems, supporting a large user base.
- Spearheaded system integration initiatives to unify insurance data platforms, improving real-time data availability for claims processing.
- Created and managed ETL pipelines to transform and load data into data warehouses (Redshift, Snowflake), optimizing insurance data storage.
- Developed real-time analytics dashboards for claims data, improving fraud detection efforts by leveraging big data technologies.
- Worked closely with security teams to enforce data security measures (IAM, VPC) and ensure compliance with regulatory standards (HIPAA).
- Implemented CI/CD pipelines (Jenkins, GitLab CI, AWS Code Pipeline) to automate deployment and testing of insurance data applications.
- Built and optimized monitoring and alerting systems using AWS CloudWatch and Splunk, ensuring high availability and minimal downtime.
- Collaborated with cross-functional teams (fraud detection, risk management, claims) to develop data solutions that enhanced operational efficiency.

Certifications

- **AWS Certified Developer – Associate**
- **AWS Certified Cloud Practitioner (CLF-C02)**

Education

M.S. IN COMPUTER SCIENCE | DEC 2024 | RIVIER UNIVERSITY, NH, USA

B. TECH IN COMPUTER SCIENCE | 2015 | VEMU, INDIA