

MADHAV KUMAR

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TECHNICAL SKILLS

Programming Languages: Python, Java, Kotlin
Frameworks & Tools: Spring Boot, Apache Airflow, Docker, Kubernetes, GitLab CI/CD
Cloud & DevOps: AWS (Lambda, EC2, EKS, SQS, SNS, RDS, DynamoDB, CloudWatch, IAM)
Databases: MySQL, PostgreSQL, MongoDB, ClickHouse
Data & Analytics: Excel, Tableau
Version Control & Collaboration: Git, GitHub, GitLab, Jira, Confluence
Other Skills: REST APIs, Microservices, Automation Scripts, Cost Optimization

EXPERIENCE

Nielsen – Software Development Engineer Intern

Mar 2025 - Present

- Designed and developed an automation testing framework in Python to validate and monitor AWS Lambda functions, integrating SQS, SNS, and S3 configurations.
- Implemented AWS cost optimization by compressing large S3 objects and automating data management processes, leading to reduced storage costs.
- Built an asset monitoring pipeline that captures real-time events from multiple Lambda functions and stores them in a database hosted on EC2 for centralized monitoring.
- Created and enhanced Lambda functions, adding new features and plugins to improve automation and system performance.
- Worked extensively with RDS (PostgreSQL) and ClickHouse, monitoring logs through CloudWatch, querying Athena, and setting up automated alerts via SNS and SQS.
- (Optional: Developed a custom web scraping framework to extract metadata from Amazon Prime Video for internal data enrichment and testing purposes.)

PROJECTS

Kubernetes Logging System (Personal Project)

- Built a Kubernetes-based sidecar system using ClickHouse and Fluentd for log collection and analysis.
- Deployed locally on Minikube to simulate real-world logging and observability workflows.

Sentiment Analysis API (Spring Boot + Java NLP)

- Developed a Spring Boot application that analyzes user input text using Stanford CoreNLP to detect sentiment.
- Designed a simple REST API for real-time sentiment classification and response delivery.

Task Scheduler App (Android – Kotlin + SQLite)

- Built an efficient task management system using SQLite for data storage. Implemented CRUD operations (Create, Read, Update, Delete) with search functionality. Ensured smooth and optimized user interaction with a clean and intuitive UI.

CERTIFICATES

Application Development in Java

- Gained practical knowledge in Java GUI development, JDBC for database management, and Java networking. Applied these skills in projects to improve application design and functionality.

EDUCATION

Lovely Professional University	Jalandhar, Punjab, India
Bachelor of Technology-Computer Science & Engineering	August2022-Present
CGPA:8.65	
Litera Valley School	Patna, Bihar, India
Senior secondary education (PCM)	2019 - 2021
Percentage: 81.00	
PTJM Saraswati Vidya Mandir	Rajgir, Bihar, India
Secondary education (10th)	2018 - 2019
Percentage: 92.00	

EXTRA-CURRICULAR ACTIVITIES

Inter school sports participation in volleyball