

Ajay Kumar Seelam (Software Engineer)

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EDUCATION

University of North Texas

Masters in Computer Science

Nalla Narasimha Reddy Education Society's Group of Institutions

Bachelors in Computer Science

Denton, Texas, USA

Jan 2023 - Dec 2024

India

Aug 2017 - May 2021

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, HTML, CSS, JavaScript

Big Data Technologies: Hadoop, Hive, Apache Spark, Apache Kafka, NoSQL Database - Cassandra

UI Frameworks: React-inspired UI platform, HTML5, JavaScript, CSS, JSP, DOM, Methodologies: SDLC Agile

Databases: MySQL, PostgreSQL, Oracle Database, XML, JSON Datastores: NoSQL, Relational

Amazon certified AWS Cloud Practitioner: S3, Compute, DynamoDB, RDS, Glue, EMR, Lambda, Athena, AWS Lake Formation, CloudWatch, EC2, Sagemaker, AWS Identity and Access Management (IAM), Amazon Data Pipeline

Frameworks and Libraries: Spring Core, Spring Test, Spring IOC, Spring JMS, Spring JDBC, Spring AOP, Spring Cache, CDI, JPA, Hibernate, JUnit, Mockito, Spring

IDEs and Tools: IBM Web Sphere, Tomcat, Ant, Log4j, Apache Commons, Eclipse, IntelliJ IDEA, Spring Tool Suite, JIRA, Confluence, SoapUI, WinSCP, PuTTY, Git Bash, SQL Server Management Studio, Maven, Node.js, SVN, Tortoise, JMeter, Docker

Architectures: Application Architecture, Data Architecture, Infrastructure Architecture, Transformers, Large Language Models, API Development, custom GPT's, Parser Generators, Regular Expressions, Natural Language Processing

WORK EXPERIENCE

Software Engineer

University of North Texas - Transportation Services, USA

Aug 2023 – Dec 2024

- Designed and implemented fraud detection algorithms using Python, MySQL, and SQL Server, analyzing 1M+ parking-related transaction records stored on AWS. Leveraged SQL Server Management Studio for database management, enhancing fraudulent activity identification accuracy by 35% and strengthening operational security. The AWS infrastructure ensured scalability and reliability for processing large datasets. Developed React dashboards to visualize key findings, improving operational efficiency, reducing travel time by 10% and improving route planning by 15%.
- Developed interactive dashboards with React and Power BI, enhancing stakeholder engagement and driving a 40% increase in data-driven decision-making. Leveraged AWS services to ensure scalability and operational reliability while processing large datasets. Used SQL for data manipulation and analysis to improve operational efficiency. These React dashboards provided real-time insights based on SQL queries.

Software Engineer

Stellantis, India

Oct 2021 – Dec 2022

- Engineered scalable microservices using Java, Spring Boot, and Spring Framework within an Agile environment, ensuring high performance and reliability in large-scale applications. Enhanced data collection efficiency by 30% through Python-based automation scripts, streamlining processing tasks for over 200+ data files per sprint. Successfully implemented and maintained these microservices using Agile methodologies.
- Spearheaded full-stack application development for web and mobile platforms using Java and J2EE, React, React Native, and Spring Boot, delivering robust and scalable microservices and REST APIs. Engineered backend services, ensuring high performance and reliability for large-scale applications. Successfully implemented RESTful APIs for seamless communication between microservices. Conducted testing frameworks using JUnit and manual testing, resulting in 10% fewer bugs.
- Engineered backend services and implemented RESTful APIs using Spring Framework and Spring Security, ensuring high performance and reliability for large-scale applications.

Software Engineer

Autosmart Fin , India

Jun 2019– Jul 2021

- Designed and implemented backend components and frameworks in Java to support real-time financial data processing and improve system functionality, collaborating in an Agile environment to deliver efficient and reliable software solutions for clients, resulting in better customer satisfaction.
- Built CI/CD pipelines with Jenkins and Maven on AWS Cloud Services, integrating TypeScript for web application deployments, eliminating manual interventions and ensuring seamless deployments across projects using DevOps best practices. Improved deployment processes using Git Actions, cutting release times by 40%. Leveraged Elasticsearch for real-time data indexing and search functionalities, enhancing data accessibility and analysis speed by 10%.
- Implemented Docker containers for improved application deployment and scalability, and leveraged Kubernetes for orchestration to further enhance efficiency.
- Improved system performance by implementing real-time search functionalities with Elasticsearch, increasing data accessibility by 10% and reducing search times by 75%.