# **Akhil Thundiyil Narendran**

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## Summary

Software Engineer with 11+ years of experience in Full Stack Development, specializing in GO/Python/Java Spring Boot, Angular/React, ETL, Data Engineering, AWS Cloud Solutions, microservices, process optimization, and strategic reporting. Demonstrated expertise as a lead engineer in reducing costs through AWS migrations, optimizing cloud database replication, upgrading Spring Boot applications, streamlining Databricks workflows, enhancing ETL data pipelines, adopting OAuth2 security protocols, and improving UI/UX with Angular and React. Skilled in collaboration, stakeholder management, and delivering high-quality solutions aligned with organizational goals. Holds AWS Associate and Terraform certifications, showcasing a strong commitment to continuous learning and delivering impactful results.

## **Experience**

#### **Lead Software Engineer**

#### JP Morgan

Oct 2019 - Present

- **AWS Cloud Migration**: Led the on-prem to AWS migration, release planning, code synchronization, and critical process enhancements. Implemented AWS StepFunctions with EventBridge and S3 for ETL job migration, implemented app-to-app communication in ECS Fargate, and developed a proxy Internet Proxy, achieving seamless production deployment and further providing support along with SRE.
- **Database Migration and Optimization**: Successfully migrated on-premises Oracle databases to AWS, ensuring optimal performance through replication strategies, data dump migration processes, database preparation, and thorough DB admin configurations. Ensured smooth transitions while maintaining high availability and scalability.
- **Databricks & Big Data Engineering**: Built scalable ETL pipelines to load data into Databricks using PySpark and integrated with Delta Lake. Enabled web application connectivity to Databricks, supporting real-time data visualization and downstream triggers. Designed and scheduled Databricks workflows using AWS, JAVA, Python and PySpark, supporting big data use cases.
- **Spring Boot Microservices**: Managed and maintained multiple Spring Boot microservices, with a focus on Sonar Scanning, Open Source Scanning (OSS) and static code scans to ensure best practices and security compliance. Performed periodic Spring Boot upgrades to keep services up-to-date, and developed new domain-driven microservices aligned with business needs and best practices.
- Frontend Development with Angular/React: Spearheaded migration from legacy frameworks to Angular with Material Design, implementing modern UI/UX enhancements. Integrated Reduc/RxJS for state management, HTTP interceptors for seamless API handling, and Ag-Grid for efficient data visualization. Optimized performance using lazy loading, auth guards, and OAuth2 for secure and scalable authentication and routing.
- **Reporting Implementaiton**: Designed and implemented reporting framework to migrate reports from SAP BusinessObjects, so as to enable independent report generation, improve user experience, and eliminate operational dependencies, streamlining processes across teams.
- **Compliance and Testing**: Developed end-to-end test cases for apps using Selenium and Playwright, and ensured high-quality deliverables through thorough use case development, testing, and prompt resolution of UAT issues. Maintained clear communication with stakeholders to align project outcomes with business goals.
- **Leadership and Collaboration**: Acted as the Subject Matter Expert (SME) for VatEngine, fostering teamwork and strategic planning during AWS migration. Promoted a feedback-driven culture to enhance team cohesion, morale, and efficiency.
- **Documentation and Knowledge Sharing**: Maintained comprehensive documentation in Confluence, supporting smooth application transitions and strategic planning. Ensured consistent knowledge transfer across teams to uphold operational excellence.
- **Cost Optimization**: Delivered cost-efficient solutions through cloud database replication, infrastructure modernization, and workflow streamlining, achieving alignment with organizational objectives.
- **Community Engagement**: Actively contributed to team culture by hosting and participating in local events, including sports meets and hackathons. Organized and led technical demo sessions and knowledge transfers (KT) to foster collaboration and continuous learning within and across teams.
- **UAT and Compliance:** Worked closely with stakeholders to develop and test use cases, resolve UAT issues promptly, and ensure alignment with compliance standards. This approach fostered trust and collaboration, resulting in high-quality deliverables.

- **Application Development:** Worked as a Full Stack Java Developer, managing a microservices-based application built with Angular on the frontend and Java on the backend. The application interacted with data stored in Oracle and MongoDB, ensuring seamless integration and performance. Backend and Communication: Designed and implemented App-to-App communication using Kafka for messaging and REST APIs for service interactions, enabling efficient and scalable communication between various services.
- **DevOps Integration:** Collaborated with the DevOps team to streamline the build and deployment process. Worked with multiple application endpoints in GitLab, JFrog, and Jenkins, and created custom endpoints to facilitate seamless communication with these tools for CI/CD pipelines and artifact management.
- **Cloud Deployment:** Deployed applications on both private cloud and Azure cloud environments, ensuring high availability and scalability. Automated cloud configurations using Ansible to simplify management and improve efficiency across environments.
- **Agile Methodology:** Followed the Agile Scrum model for project management, ensuring timely delivery of features and enhancements. Supported CI/CD processes with ServiceNow integration for issue tracking and automated workflows, and managed code repositories through GitLab for version control and collaboration.
- **Collaboration & Continuous Improvement:** Worked closely with cross-functional teams, including DevOps and product managers, to ensure alignment on requirements and timelines. Continuously sought to improve processes and practices, leveraging Agile methodologies and DevOps tools to optimize delivery and quality.

#### Software Engineer - Staff Consultant Oracle

Jan 2014 - Feb 2019

- **Java Development:** Wrote clean, efficient, and maintainable Java code for feature implementation, enhancements, and bug fixes. Designed and executed unit tests using JUnit and similar frameworks to ensure code functionality and quality.
- **Database Management:** Created SQL queries and PL/SQL scripts for database interactions, data manipulation, and schema management. Managed data ingestion from external sources into Oracle databases, ensuring accuracy and consistency.
- **ETL Process & Data Integration:** Designed and implemented ETL processes to move and transform data between systems, ensuring data quality and integrity.
- **Automation & Scripting:** Developed shell scripts for automation, system tasks, and integration between software components.
- **Deployment & Production Support:** Assisted in the deployment and release processes across development, testing, and production environments. Investigated and resolved production issues, diagnosing root causes and providing timely fixes to minimize downtime.
- **Collaboration & Requirements Gathering:** Collaborated with business analysts and stakeholders to gather and understand software requirements. Engaged with end-users to gather feedback, clarify requirements, and align software with user needs.
- **Documentation & Code Reviews:** Created and maintained detailed documentation for code, architecture, and project-related materials. Participated in code reviews to uphold coding standards, identify issues, and foster team knowledge sharing.
- **Performance Optimization & Security:** Identified and addressed performance bottlenecks in the codebase to enhance application efficiency. Incorporated security best practices to safeguard against vulnerabilities and protect data confidentiality.
- **Continuous Learning:** Stayed updated with the latest Java technologies and industry best practices to contribute effectively to project success.

## Skills

**Programming**Languages:

Java, Spring Boot, Go, Python, TypeScript

Frontend Angular, RxJS, Ag-Grid

AWS Cloud Solutions (StepFunctions, ECS Fargate, RDS, Glue, S3, Route 53, VPC, Security

Cloud Technologies: Groups, Lambda), Terraform, Cloud Foundry

**DevOps and Tools:** CI/CD pipelines, Confluence, Docker, Git, Jenkins

**Testing:** Jasmin/Karma, Cucumber, Spring Test, JUnit, Mokito, Selenium

### Certifications

Frameworks:

AWS Certified Developer - Associate 2022
HashiCorp Certified: Terraform Associate 2023

## **Education**

**Bachelor of Engineering**Sathyabama Institute of Technology

Sep 2009 - Jul 2013

Chennai, India