Akhil Thundiyil Narendran

Full Stack Polyglot Developer

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Summary

Software Engineer (Java/Python/Go/Node.js/TypeScript) with 12+ years of experience in Full Stack Development, bringing strong expertise in front-end frameworks (Angular/React) and backend API development (Spring Boot/Fiber). Experienced in system design, serverless architectures, Docker containers, and event-driven solutions. Skilled in building and optimizing data lake systems such as Databricks, designing Apache Spark workflows for ETL, and driving process optimization initiatives. Adept at aligning technical solutions with business goals, while ensuring scalability, security, and performance. Recognized for collaboration, stakeholder management, and delivery of high-quality systems. Holds AWS Associate and Terraform certifications, underscoring a strong commitment to continuous learning and impactful results.

Experience

Senior Software Engineer   **JP Morgan**   **Oct 2019 - Present**

- **AWS Cloud**: Experienced in designing cost-optimized serverless architectures with Lambda and API Gateway, and building containerized microservices using ECS (Fargate), Docker, and Kubernetes. Hands-on with event-driven architectures leveraging Kafka, Kinesis, EventBridge, and Step Functions for scalable workflows. Proficient in working with cloud databases including RDS (Oracle/Postgres), DynamoDB, Athena, and S3 for storage and analytics. Strong background in ETL job migration, data lake integration (Databricks, Apache Spark), and process optimization, consistently delivering cost-efficient, production-ready cloud solutions.
- **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**: Extensive experience designing and developing scalable, resilient microservices using Java Spring Boot. Skilled in building RESTful APIs, implementing OAuth2/JWT security, and integrating with databases (SQL/NoSQL) and messaging systems (Kafka). Hands-on with Dockerized deployments, CI/CD pipelines, and cloud-native integration on AWS/ECS/Kubernetes. Strong focus on performance tuning, cost optimization, and high availability, ensuring robust backend services that align with business needs.
- **Frontend Development with Angular/React**: Created scalable Angular and React applications with Figma-driven UI/UX and Material Design. Built micro-frontend architectures with independently deployable modules, implemented Redux/RxJS for state management, HTTP interceptors for API communication, and Ag-Grid for rich data visualization. Enhanced performance and security using lazy loading, auth guards, and OAuth2-based authentication.
- **Testing & Compliance**: Implemented TDD using JUnit and BDD with Cucumber, designing and executing end-to-end test cases with Selenium and Playwright. Applied code quality and security checks using Sonar, Snyk, OSS scanning, and static monitoring tools, ensuring secure, reliable, and compliant software delivery.
- **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.
- **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.
- **Artificial Intelligence (AI)**: Worked with AI developer tools including GitHub Copilot, Windsurf, OpenHands, and OpenCode, applying prompt engineering to accelerate development, improve code quality, and automate repetitive tasks. Integrated AI-driven thworkflows with MCP servers to enable intelligent automation, process optimization, and data-driven insights for efficient, high-impact enterprise solutions.

Software Engineer - Associate   **Cognizant Technology Solutions**   **Mar 2019 - Sep 2019**

- **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 Frameworks:	Angular, React, RxJS, Ag-Grid, Redux
Cloud Technologies:	AWS Cloud Solutions (Lambda, Step Functions, API Gateway, ECS Fargate, RDS [Oracle/Postgres], DynamoDB, Glue, S3, Route 53, VPC, Security Groups), Terraform, Cloud Foundry
DevOps and Tools:	CI/CD Jenkins/Spinnaker pipelines, Docker, Kubernetes, Git, Confluence, Sonar, Snyk, OSS scanning, static monitoring
Testing:	TDD with JUnit, BDD with Cucumber, Jasmine/Karma, Spring Test, Mockito, Selenium, Playwright
AI Tools:	GitHub Copilot, Windsurf, OpenHands, OpenCode, MCP (Model Context Protocol)

Certifications

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

Education

Bachelor of Engineering   **Sep 2009 - Jul 2013**
Sathyabama Institute of Technology   Chennai, India