

# Abhishek Singh

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## PROFESSIONAL HIGHLIGHTS

- Architected and implemented **Multi-Tenant SSO** with **PKCE** and dynamic registration compliant with the **MCP** specification.
- Built the **Agentic Framework UI** with **WebSocket**-based chat and **Redis**-backed persistence for user-created AI agents.
- Led framework migrations from Angular 16 to 19. Created **Schematics** for convenient downstream adoption of updates.
- Enhanced accessibility and performance using **NVDA** testing, lazy loading, and **Service Worker**-based offline caching.
- Integrated **Cypress** E2E tests into **Jenkins** CI.
- Experience with backend technologies such as **NestJS** and **Springboot**, primarily for aggregation of downstream services or as BFF layers.
- Integrated observability with **Datadog**, **LogRocket**, and **ELK**, exposing latency, token use, and session health.

## EXPERIENCE

### SIEMENS | SOFTWARE ENGINEER

March 2024 - Present | Remote

- Implemented multi-tenant SSO with **Dynamic Client Registration**, auth-server discovery via **PRM**, and full **PKCE**/token lifecycle management per **MCP**.
- Built the Agentic Framework UI enabling users to create and chat with custom agents via a **WebSocket** interface; channels maintained using **Redis Pub/Sub** with asynchronous backups.
- Developed Angular modules for agent creation, configuration, and live conversation management.
- Created **Kibana** dashboards for custom metrics: tokens consumed, average time per turn, and agent response latency.

### EPAM SYSTEMS | SOFTWARE ENGINEER

Aug 2023 - March 2024 | Gurugram, Haryana

- Led migration from **Angular 16 -> 19** across shared libraries and app modules.
- Developed reusable **Angular Schematics** to automate migration for internal teams using our libraries.
- Updated components and theming to comply with brand/styling evolution updates.
- Delivered accessibility enhancements and verified with the **NVDA** screen reader.
- Set up **Cypress** E2E testing wired into **Jenkins** pipelines for automated regression.

### DELOITTE | CONSULTANT

Jan 2022 – Aug 2023 | Gurugram, Haryana

- Migrated a production React app from JSX to TSX in stages using **Tsc** and **Nodets** without breaking compilation.
- Reduced bundle size by offloading heavy third-party plugins to **Service Workers**; implemented offline-first caching.
- Instrumented and automated **Redux** state synchronization with **AWS ElastiCache** for continuous backup and fast recovery.
- Stored user preferences and layouts in **DynamoDB** for persistent personalization.
- Owned the BFF layer: a **GraphQL** backend in **NestJS** aggregating and shaping data for React clients; added domain APIs for claims and live updates.
- Integrated telemetry with **Datadog** to monitor latency and session health.

## TATA CONSULTANCY SERVICES | SYSTEMS ENGINEER

Aug 2019 – Jan 2022 | Indore, Madhya Pradesh

- Built Angular dashboards for policyholders with reusable components and shared services.
  - Implemented Reactive Forms, custom directives, and **RxJS** observables for interactive data handling.
  - Developed **Spring Boot** APIs for policy and authentication workflows; deployed via **Docker** on **AWS EKS**.
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## SKILLS

### FRONTEND TECHNOLOGIES

- JavaScript, TypeScript, Angular, React, HTML, CSS
- Redux, NgRx, RxJS
- Bootstrap, Angular Material, Material UI

### BACKEND & APIS

- Java, Spring Boot, Hibernate, Java EE
- Node.js, NestJS, Express.js
- GraphQL
- PostgreSQL, MongoDB, DynamoDB, Redis

### CLOUD, DEVOPS & CI/CD

- AWS (EKS, SQS, SNS, S3, CloudWatch, CloudFormation)
- Docker, Kubernetes
- Git, Jenkins, Bamboo

### MONITORING, ANALYTICS & MESSAGING

- Apache Kafka, WebSockets
  - Datadog, LogRocket, Splunk, Quantum Metric, ELK, Kibana
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## CERTIFICATIONS

### AWS CERTIFIED DEVELOPER - ASSOCIATE

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## EDUCATION

### SRM INSTITUTE OF SCIENCE & TECHNOLOGY | BACHELOR OF TECHNOLOGY

July 2015 - May 2019 | Chennai, Tamil Nadu

Percentage - 85

### GRADUATED WITH DISTINCTION