

# J. Marshall Turner Full-Stack Software Engineer

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## Profile Summary

- **Full-Stack Software Engineer** with a wealth of experience building and scaling real-time financial systems and developer platforms across capital markets and fintech products, including high-volume trading portals and internal payments tooling at **Fannie Mae** and **USAA**.
- Well-rounded technical skill set across full-stack development (**Angular, React, TypeScript, Java**), backend services (**Spring Boot, REST APIs, Dagger, Lombok**), cloud and data platforms (**AWS, DynamoDB, EC2, Lambda**), and delivery tooling (**Jenkins, GitLab, CI/CD, Docker, Kubernetes**).
- Strong domain expertise in real-time systems, financial transaction flows, and scalable web architectures, with a focus on maintainability, performance, and testability using **Agile, Dependency Injection**, and automated testing methodologies.
- Collaborative engineer working closely with Traders, Product Owners, QA, and DevOps teams in **Agile** environments, contributing to sprint ceremonies, code reviews, and architectural discussions with a delivery-driven and pragmatic mindset.
- Emerging technical leader who drives code quality and knowledge sharing through peer reviews and contributing to reusable component libraries and internal platform improvements.

## Technical Skills

**Programming Languages:** Java, JavaScript/TypeScript, Python, C/C++, HTML/CSS

**Frameworks & Libraries:** Angular, React, Redux, NgRx, Spring Boot, Lightstreamer, Dagger, Lombok, Cucumber, Selenium, JUnit, Spock, Node.js, Jasmine, Karate, Mockito

**Cloud & Infrastructure:** AWS (S3, EC2, Lambda, Fargate, SNS, SQS, CloudWatch), Docker, Kubernetes

**Databases:** DynamoDB

**CI/CD & DevOps:** Jenkins, GitLab, Bitbucket, Git, Terraform, Maven, Gradle, SonarQube

**Monitoring & Collaboration:** Splunk, Jira, Confluence

**Developer & Testing:** Linux, Sauce Labs, GitHub Copilot, Google Forms API

## Education

### University of North Texas

B.S. in Computer Science

Denton, TX

Aug. 2020 - May 2023

### Texas A&M University

Undergraduate Studies

College Station, TX

2018 - 2020

## Work Experience

### Fannie Mae

Plano, TX

#### Full-Stack Software Engineer

Jul. 2023 - Present

- Played a central role in the software development life cycle by maintaining a real-time Mortgage-Backed Securities trading portal processing approximately **\$2.7B** in daily trading volume across **269** transaction-active users.
- Collaborated within a cross-functional team including **Market Operations traders, Product Owners, and Software Engineers**, using **Agile** practices like daily stand-up meetings and weekly sprints to deliver under tight deadlines.
- Built trading reports and hit rate analytics components in **Angular** and **TypeScript**, featuring data-driven **UI** rendering with reusable data tables, optimizing **UI** responsiveness via change detection tuning and client-side rendering optimizations, thus helping identify which lenders to target to win more trades.

- Created **Java Spring Boot RESTful APIs** by defining **REST** resource modeling and structuring dependencies with **Dagger** module definitions and compile-time injection, improving maintainability with Lombok-driven boilerplate reduction across core services.
- Designed **AWS** services using stateless decomposition and horizontally scalable **APIs**, tuning **EC2** hosting, **S3** storage, and **DynamoDB** databases, implementing **Fargate** containers and **Lambda** for event-driven workloads, enabling auto-scaling for variable request volume.
- Automated testing and deployments in **GitLab** by migrating pipelines from **Jenkins** and **BitBucket**, designing build-test-deploy workflows and multi-branch pipelines, and enforcing environment-specific deployment to lower cloud environments, supporting stable ~2-week releases for a critical finance application.
- Standardized collaboration in **Git** repositories across **GitLab** and **Bitbucket** by enforcing feature branching and pull request-based merging alongside peer reviews and merge validation checks in a **Linux**-based development environment processing multiple **PRs** each month.
- Deployed automation suites with a balanced test strategy of unit and integration test layering and regression coverage and a maintainable test framework of **Selenium**-based **UI** automation and **Behavior-Driven Development scenarios** with **Cucumber**, executing **4,000+** test cases per release.
- Contributed to delivery cycles by participating in daily standups and story acceptance and team delivery reviews, supporting execution predictability across **26** sprints/year.
- Established production visibility by instrumenting services with **CloudWatch** and **Splunk** logs and configuring threshold-based alarms and anomaly detection, thus cutting mean time to detection to a few minutes.
- Managed application data flows by designing **DynamoDB-backed transaction** state models and operating **DynamoDB** tables to persist and update trade lifecycles across multiple states (e.g., lender\_open, trader\_priced, lender\_accepted, trade\_executed), ensuring reliable and consistent write and read performance aligned with active trading volumes.
- Improved system responsiveness by profiling **JVM** performance tools and front-end browser profilers and tuning query optimization and caching strategies, keeping lender-analytics popover response times under **1s**.
- Delivered presentations and live demos of new and proof-of-concept features during sprint reviews to non-technical stakeholders, translating complex engineering trade-offs into clear, decision-ready insights, and documenting system behavior and data flows in **Confluence** for systems that previously had no documentation.
- Guided teammates on **UI** topics and conducted **UI code reviews** when requested by the team lead, while remaining available to encourage communication and collaboration.

## USAA

Plano, TX

### Full-Stack Software Engineer Intern

Jun. 2022 - Aug. 2022

- Built an internal administrative webpage for developers and support engineers to debug payment platform issues, with the initial version delivered during the internship before production rollout.
- Defined a **frontend-to-backend system architecture** around layered **frontend-service-data architecture** and service-oriented design, linking user services via **RESTful APIs** and synchronous **HTTP** service calls, sizing and testing for future production traffic instead of live peak load.
- Implemented a frontend in **React** and **JavaScript** with **HTML/CSS** by structuring UI and managing state with **Redux** global stores and **Redux Saga** side-effect orchestration for predictable and reusable data flows.
- Deployed **unit tests** for frontend components and logic with **Jest** and **React Testing Library**, with a coverage of **95%**.
- Built a backend in **Java Spring Boot** with Lombok annotations by exposing **REST** endpoints and **JSON** request/response schemas and querying data via **JDBC SQL** queries and service-layer queries, keeping response times under **1s**.
- Automated delivery with containerized services by defining a **Docker** container strategy and rolling updates on **Kubernetes** via declarative manifests and rolling pod updates, ultimately pushing faster deployments.