

MARZUWQ ABDULLAH MUHAMMAD

SENIOR SOFTWARE ENGINEER | JAVA / SPRING BOOT | AWS | FULL-STACK | APPLIED AI

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PROFESSIONAL SUMMARY

Senior software engineer with 10+ years building Java/Spring Boot microservices, REST APIs, and full-stack applications across financial services, healthcare, and applied AI. At JPMorganChase, led and coded alongside a 6-engineer team to migrate 4 applications to a new data center, cutting \$1.2M in annual operating costs and finishing two months ahead of a hard deadline. Also helped break 3 monoliths into 15 microservices on AWS ECS, raising availability 8% and cutting average deployment time by 2+ hours. Independently fixed the backend rule mismatches behind failed and stuck transactions, saving 168 analyst-hours a week and cutting up to \$2.8M in monthly financial risk. Raised production install success from 65% to 98% and increased deployment cadence to 3-4 releases per month. Currently building production generative-AI systems, multi-agent workflows, and local LLM tooling.

PROFESSIONAL EXPERIENCE

JPMorganChase | Tampa, FL | Feb 2020 - Present

Software Engineering / Technical Leadership / Agile Delivery

Engineering

- **Cut \$1.2M in annual operating costs by migrating 4 production Java/Spring Boot applications to a new data center.** Facing a hard 12-month deadline before operating expenses would balloon, led a team of 6 engineers while coding alongside them, rewriting application code and configuration for the new environment. Delivered in 10 months, two months ahead of schedule.
- **Improved availability by 8% and cut average deployment time by 2+ hours by breaking 3 monoliths into 15 Java/Spring Boot microservices on AWS ECS.** Driven by an internal mandate to move key systems to the cloud, worked hands-on as one of 25 engineers across the 15-month effort, rebuilding on Spring Boot and React behind elastic load balancing; the migration met the mandate.
- **Saved 168 analyst-hours per week and cut up to \$2.8M in monthly financial risk by fixing the rule mismatches behind failed and stuck transactions.** Analysts had been repairing these by hand, and whenever the backlog piled up, that money was at risk each month, with some of it lost before the fixes. Worked with analysts to pinpoint the recurring issues, then independently fixed them over 3 years through Java/Spring Boot backend changes and Oracle SQL updates.
- **Remediated 72+ vulnerabilities across 5 applications in 2026, passing the security audit and staying within the bank's remediation SLA.** AI-assisted security research had exposed a wave of zero-day vulnerabilities in open-source libraries and the Spring framework, including Spring Boot. Found them with Snyk and made most fixes hands-on, including code changes and version upgrades, while leading 7 engineers on the rest, without slowing release velocity or service stability.
- Build Java/Spring Boot features, services, and system integrations across enterprise applications in an Agile environment, taking requirements from Jira and delivering them within the sprint; handle debugging, code review, and technical design within established architecture and security controls.
- Translate stakeholder requirements into technical designs, Agile stories, implementation plans, and production-ready code; review changes entering shared repositories.
- Investigate defects and production issues through root-cause analysis, debugging, and cross-team troubleshooting; support release validation and post-deployment monitoring.
- Owned unit, integration, and end-to-end testing for new features and application changes, supporting software quality and production readiness.

Technical Leadership & Delivery

- Redesigned release-management and corrective-action processes, increasing successful production installations from 65% to 98% across 32 months of process ownership.
- Increased deployment cadence from one to 3-4 releases per month through backlog readiness, cross-team planning, testing discipline, and production-governance improvements.
- Lead project planning and delivery coordination across three Agile teams and 21 engineers within a 60+ person US-India organization supporting five enterprise applications.
- Manage scope, schedules, dependencies, risks, stakeholder communication, and release readiness; translate business objectives into roadmaps and sprint-level commitments.
- Coordinate application upgrades, security remediation, stakeholder approvals, implementation plans, and post-release validation across engineering, operations, management, and control partners.

- Facilitate Scrum ceremonies, remove delivery impediments, and coach teams toward self-organization; create delivery reporting, technical documentation, and support procedures.
- Deliver tech-stack presentations, training materials, and onboarding support for junior engineers and new team members.

Florida Blue | Jacksonville, FL | Jun 2019 - Jan 2020

Software Engineer - Contract

- Developed and integrated planned features into enterprise Java and Spring Boot microservice applications as part of a Scrum delivery team.
- Built, tested, and maintained containerized services operating in Kubernetes environments while using established open-source libraries, shared frameworks, and enterprise development standards.
- Reviewed and critiqued proposed code changes before integration into the existing codebase, identifying defects, maintainability concerns, and compatibility risks.
- Participated in sprint planning, daily stand-ups, refinement, reviews, and retrospectives to clarify requirements, estimate work, surface blockers, and deliver committed features.
- Coordinated with engineers and application stakeholders to build monthly upgrade and release plans covering dependencies, testing, implementation, and deployment readiness.
- Troubleshoot development and integration issues across services and collaborated with teammates to protect application stability and delivery timelines.

Wilmington University | Delaware | Mar 2018 - Mar 2019

Adjunct Professor - Computer Science

- Taught Java software engineering to a class of 10 students, covering Spring Boot back-end development and React front ends.
- Prepared lectures, hands-on assignments, and course materials, and evaluated student work with individual feedback.

Bank of America | Newark, DE | Dec 2015 - Feb 2018

Software Engineer

- Developed and maintained enterprise Java and Spring Boot microservices supporting third-party API exposure, web-service integrations, sorting, data retrieval, and internal application workflows.
- Designed RESTful service layers that converted external API capabilities into reusable internal services, improving consistency and simplifying integration for downstream consumers.
- Contributed to front-end functionality connected to back-end services, collaborating across application layers to deliver complete user-facing features and troubleshoot integration defects.
- Created and extended Java testing frameworks and automated daily regression runs, increasing coverage of the existing codebase and identifying compatibility issues before release.
- Participated in daily stand-ups, sprint planning, backlog refinement, reviews, and retrospectives; communicated progress and risks against stories committed at the start of each sprint.
- Provided technical assistance, consulting, and enterprise access-management support to internal and external partners, resolving permission, integration, and application-use issues.
- Supported defect analysis, data investigation, documentation, and production-readiness activities in a controlled financial-services environment.

SOFTWARE ENGINEERING PROJECTS

Portraius - Production Generative-AI Photography Platform

Software Engineering Project | Sep 2025 - Present | portraius.com

- Designed, built, and launched a production generative-AI photography platform across web and iOS using React, TypeScript, Vite, Tailwind CSS, Capacitor, Node.js/Express, AWS, MongoDB, Redis/BullMQ, and Stripe.
- Directed production engineering with OpenAI Codex, Claude Code, and Cursor across implementation, refactoring, debugging, testing, documentation, and deployment while retaining architectural, security, and code-quality ownership.
- Designed and operated multi-agent teams for software engineering, content creation, cloud workflows, and local desktop automations, defining specialized roles, task delegation, handoffs, shared context, tool access, and validation loops.
- Deployed and evaluated local LLM workflows using LM Studio, Ollama, OpenClaw, and Hermes; configured model and API endpoints and connected models to tools, agents, and automated workflows.
- Architected asynchronous, API-driven workflows coordinating personalized LoRA training, image generation, image editing, upscaling, and 5-second video generation across multiple third-party model providers.

- Built ComfyUI workflows and trained multiple LoRAs, covering training-data preparation, prompt routing, model evaluation, artifact diagnosis, and inference refinement to improve identity preservation and visual consistency.
- Implemented AWS services and security controls using Lambda, API Gateway, Cognito, IAM, S3, CloudFront, and Application Load Balancer for authenticated access, file handling, asynchronous job status, and production delivery.
- Built credit-based service orchestration, queue management, subscriptions, and purchase workflows while balancing concurrency, provider limits, reliability, user fairness, and per-request operating cost.
- Manage the software development lifecycle for this project, including architecture, implementation, testing, deployment, analytics, privacy controls, content guardrails, and App Store delivery.

TECHNICAL EXPERTISE

Languages & Core Engineering: Java, TypeScript, JavaScript, SQL (Oracle), object-oriented design, algorithms, data retrieval and transformation

Back-End & Integration: Spring Boot, REST APIs, microservices, monolith decomposition, Node.js/Express, third-party API integration, asynchronous job processing, event-driven workflow design

Front-End & Mobile: React, Vite, Tailwind CSS, responsive web applications, Capacitor, iOS application delivery

Cloud, Data & Platform: AWS ECS, Elastic Load Balancing, AWS Lambda, API Gateway, Cognito, IAM, S3, CloudFront, Application Load Balancer, cloud and data center migration, MongoDB, Redis/BullMQ, Docker, Kubernetes, Stripe, Git/GitHub

Agentic AI & Automation: multi-agent system design and orchestration, role-based agent teams, task delegation and handoffs, shared context, tool integration, validation loops, cloud workflows, local desktop automation

AI Engineering Tools & Local LLMs: OpenAI Codex, Claude Code, Cursor, LM Studio, Ollama, OpenClaw, Hermes; local model deployment, model/API endpoints, tool connectivity, model evaluation, AI-assisted SDLC

Generative AI & Model Adaptation: multimodal model APIs, diffusion models, ComfyUI, LoRA training and fine-tuning, prompt engineering and routing, training-data preparation, identity preservation, image editing and upscaling, generative video

Quality, Security & Delivery: unit/integration/end-to-end testing, automated regression testing, code review, CI/CD, production support, release management, vulnerability remediation (Snyk), SLA ownership, Agile/Scrum, Jira, stakeholder management, technical documentation and mentoring

EDUCATION, CREDENTIALS & RECOGNITION

- Zip Code Wilmington - Intensive Computer Software Engineering Program, 2015
- Professional Scrum Master (PSM) - Agile delivery, facilitation, team coaching, and continuous improvement
- TEDx Speaker - Public speaking and presentation experience