

Harshwardhan Patil

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Overview

Full-Stack Engineer with 3+ years' experience designing and delivering **scalable, high-performance systems** across frontend, backend, and cloud. Skilled in modular architectures, database optimization, and CI/CD automation on AWS. Proven record of 50+ zero-rollback production releases, mentoring junior engineers, and aligning implementations with clean architecture and system design principles.

Education

University of Texas at Arlington

Expected May 2026

Master's in Software Engineering

- Coursework: System Design, Software Testing, Cloud Computing, AI/ML with Python, Distributed Systems

Technical Skills

Languages: TypeScript, JavaScript, Java, Python, SQL, C/C++

Frontend: Angular (CLI, Material, RxJS), D3.js, HTML5, CSS3, Responsive Design, Routing Guards, Component Reusability, ARIA

Backend: Spring Boot, Spring Security, Spring Data JPA, REST APIs, DTO Pattern, JWT Authentication, Clean Architecture

Cloud & DevOps: AWS (EC2, ECS, S3, RDS, Lambda, Aurora), Docker, Jenkins, GitHub Actions, GitLab CI/CD, Spinnaker, Terraform, Nginx

Databases: PostgreSQL, MySQL, MongoDB, Redis

Testing: Jasmine, JUnit, PyTest, SonarQube, Postman

Security: JWT, CORS, HTTPS, CSRF, RBAC

Collaboration: Agile (Scrum, Sprint Planning), Mentoring

Working Knowledge: Apache Kafka, Kubernetes, DynamoDB

Professional Experience

Software Engineer, Clarivate Analytics – Bangalore, India

Aug 2023 – Aug 2024

- Delivered reusable Angular modules and Spring Boot APIs for reporting, cutting duplicate code by 80%.
- Designed secure authentication (JWT + Spring Security), strengthening access control and reducing vulnerabilities.
- Optimized PostgreSQL schema and queries, reducing latency by 40% for large-scale reports.
- Automated CI/CD pipelines with Docker, Jenkins, and Spinnaker; deployed 50+ releases with zero rollbacks.
- Mentored 2 junior engineers, doubling sprint throughput through pair programming and code reviews.
- Refactored legacy modules into modular components aligned with clean architecture, reducing maintenance costs.

Associate Software Engineer, Clarivate Analytics – Bangalore, India

Aug 2021 – Jul 2023

- Built Angular charts and reusable table components integrated with Spring Boot APIs for advanced search features.
- Bootstrapped a full-stack monorepo (Node.js + Angular) with Dockerized CI/CD pipelines, accelerating AWS deployments.
- Implemented secure auth flows (JWT, CORS, CSRF) and input sanitization, reducing security incidents.
- Standardized reusable modules adopted across 5+ teams, cutting onboarding time by 50%.
- Increased test coverage to 90%+ with Jasmine, JUnit, Protractor, reducing production bugs by 25%.
- Deployed containerized apps to AWS ECS/EC2 with secure firewall rules, improving system resilience.

Projects

Employee Management System (EMS) 🐙 🌐

Dec 2024 – Present

A cloud-hosted enterprise system for managing employees and departments with real-time metrics, CI/CD pipelines, and secure AWS deployment.

Tools: Spring Boot, Angular, PostgreSQL, AWS, Docker, Jenkins

- Engineered Spring Boot APIs with filtering, pagination, and sorting for employee/department management.
- Automated CI/CD pipelines in Jenkins for Angular + Spring Boot, reducing deployment effort by 70%.
- Deployed PostgreSQL on AWS RDS and backend on AWS EC2 with secure environment configs and firewall rules.

- Designed dashboard metrics and Chart.js visualizations to monitor employee and department trends.

Battle Arena – Multiplayer Artillery Game Platform

May 2024 – Present

A real-time multiplayer gaming platform with modular microservices, scalable matchmaking, and browser-based turn-based gameplay.

Tools: Angular, Phaser 3, Spring Boot, Node.js, MongoDB, WebSockets, Docker, AWS

- Designed microservices (auth, leaderboard, matchmaking, gameplay) to support scalable multiplayer battles.
- Integrated Phaser 3 engine with Angular 17 for smooth turn-based gameplay in-browser.
- Implemented real-time matchmaking and gameplay physics with Node.js + Socket.io for concurrent players.
- Deployed containerized services via Docker Compose and AWS for CI/CD readiness.

Better Finance – Hackathon Project (UTA)

Mar 2025

An AI-powered personal finance manager integrating Plaid API, OCR invoice scanning, and chatbot-driven financial insights.

Tools: Angular, Flask, Streamlit, PostgreSQL, Plaid API, Docker

- Built AI-powered personal finance manager in a team of 3, recognized for innovation at hackathon.
- Integrated Plaid API for secure bank linking and real-time transaction syncing.
- Implemented OCR invoice scanning and AI-driven financial advice chatbot for budgeting insights.
- Designed Streamlit UI for account overviews, transaction analytics, and budget alerts.

Certifications

- AWS Certified Solutions Architect – Associate (2025)
- AWS Certified Developer – Associate (2025)
- AWS Certified Cloud Practitioner (2025)
- Oracle Certified Professional: Java SE 17 Developer (2025)