

Harshwardhan Patil

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Overview

Frontend Engineer with 3+ years of industrial experience building **scalable, accessible, and high-performance** web applications. Specialized in modern frontend frameworks, data visualization, reusable full-stack systems, and **performance/accessibility** improvements. Practices **secure programming** principles throughout development lifecycle. Solid grounding in **API integration, secure authentication**, and lean **CI/CD** practices to ship reliably with **zero-rollback** releases. Mentors engineers and aligns implementations with clean architecture.

Education

University of Texas at Arlington

Expected May 2026

Master's in Software Engineering

- Coursework: System Design, Software Testing, Cloud Computing, Distributed Systems, Secure Programming

Technical Skills

Languages: TypeScript, JavaScript, Java, Python, SQL

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

Testing & Quality: Jasmine, Jest, JUnit, Protractor (E2E), SonarQube, Postman, Chrome DevTools

API & Auth: REST APIs, JSON, SOAP, WebSockets, OAuth, JWT, CORS, HTTPS, CSRF, RBAC

Build/Deploy: Docker, Jenkins, GitHub Actions, GitLab CI/CD, Spinnaker

Datastores: PostgreSQL, MySQL, MongoDB, Redis, Prisma ORM, JPA

Cloud: AWS (EC2, S3, RDS), Apache HTTP Server, Nginx

Working Knowledge: Spring Boot, Node.js, Kafka (basic), Kubernetes (basic)

Professional Experience

Software Engineer, Clarivate Analytics – Bangalore, India

Aug 2023 – Aug 2024

Full-Time

- **Reusable UI Platform:** Built a configurable Angular table system (dynamic columns, saved prefs, chips/side-panels, Excel export) that **cut duplicate UI code by 80%+** and accelerated feature delivery.
- **Advanced Filtering UX:** Delivered a two-pane dynamic filter UI with interdependent logic, reset-to-last-applied state, chips, and clear-all — improving discoverability and user task completion.
- **Data Visualization Library:** Authored reusable **D3.js** components (bar/stacked/line/pie) with pluggable options (legends, tooltips, labels), standardizing charts across modules and reducing maintenance.
- **Perf/Exports:** Implemented PPT/PDF export with **RxJS forkJoin** and streaming to handle large reports, reducing timeouts and improving business consumption.
- **Quality & Release:** Sustained **90%+** FE test coverage (Jasmine, SonarQube) and shipped **50+ releases with zero rollbacks** via lean CI/CD (Docker, Jenkins); partnered with BE on API contracts.
- **Mentorship:** Coached 2 junior Angular devs (pairing, reviews, patterns), **doubling** their sprint throughput and improving code quality.

Associate Software Engineer, Clarivate Analytics – Bangalore, India

Aug 2021 – Jul 2023

Full-Time

- **Feature Delivery:** Built Angular charting (D3.js) and reusable table components integrated with REST APIs for advanced search/reporting.
- **Frontend Performance:** Adopted lazy-loaded modules and optimized state/immutability patterns, **reducing initial load times by 30%**.
- **Accessibility:** Implemented ARIA roles, semantic HTML, keyboard navigation — raising Lighthouse a11y to **95+**.
- **Frontend Security:** Implemented secure client flows (JWT, CORS, CSRF), input sanitization, and error handling patterns to reduce incidents.
- **Design System:** Standardized chart/filter modules and docs, adopted across **5+** modules; cut onboarding time by **50%**.

- **Quality:** Drove FE coverage to **90%+** (Jasmine, Protractor) and reduced production bugs by **25%**.

Projects

Employee Management System

Dec 2024 – Present

A cloud-hosted Angular dashboard with real-time metrics, secure auth, and CI/CD-backed releases.

🔗 GitHub | Angular, Spring Boot, Chart.js, PostgreSQL, AWS (EC2, Lambda, S3, RDS), Docker, Jenkins

- Built Angular dashboards and forms consuming REST APIs with filtering, pagination, and sorting.
- Automated FE/BE pipelines (Jenkins) for quick, reliable releases; integrated Dockerized builds.
- Implemented auth-aware UI (JWT, guards, interceptors) and consistent error/empty/loading states.
- Designed Chart.js visualizations for department/employee metrics; improved decision visibility.

Battle Arena – Multiplayer Artillery Game

May 2024 – Present

A browser-based Angular + Phaser experience with scalable matchmaking and real-time gameplay.

🔗 GitHub | Angular 17, Phaser 3, WebSockets (Socket.io), Node.js (RT services), Spring Boot (profiles/leaderboard), MongoDB, Docker

- Integrated **Phaser 3** within Angular for smooth turn-based rendering, input handling, and scene management.
- Implemented real-time matchmaking and status UI with WebSockets; handled concurrent players and state sync.
- Built reusable UI modules (lobbies, leaderboards, HUD) and route guards for session/auth flows.
- Containerized FE/RT services for consistent local dev and CI/CD readiness.

AI-Powered Personal Finance Manager

2025 – Present

An intelligent finance web application with AI-driven expense categorization, budget tracking, bill reminders, and banking integration.

🔗 GitHub | Streamlit, Flask REST API, OpenAI GPT, Plaid API, AWS RDS, Docker, GitHub Actions

- Built interactive finance dashboard with real-time transaction visualization and budget tracking using Streamlit and Altair.
- Integrated Plaid API for secure bank account linking and transaction history fetching; implemented AI-powered auto-categorization using OpenAI GPT.
- Developed AI chatbot for financial insights and budgeting recommendations; implemented receipt scanning with ChatGPT Vision for expense extraction.
- Created bill reminder system with UI and email alerts; designed analytics dashboard with spending trends, anomaly detection, and exportable reports.

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)