Harshwardhan Patil

 Arlington, TX   work.harshwardhanpatil@gmail.com   817-938-9288   LinkedIn   GitHub   Portfolio

Overview

Frontend Engineer (Angular) with 3+ years' experience building **scalable, accessible, and high-performance** web applications. Specialized in **Angular (CLI, Material, RxJS)**, **D3.js** data visualization, reusable UI systems, and **performance/accessibility** improvements (ARIA). Solid grounding in **API integration** (REST/JSON), **secure auth** (JWT, CORS, CSRF), and lean **CI/CD** to ship reliably (**50+ zero-rollback** releases). Mentors engineers and aligns implementations with clean frontend architecture.

Education

University of Texas at Arlington   *Expected May 2026*
Master's in Software Engineering

- System Design, Secure Programming, Software Testing, Cloud Computing, Machine Learning, Distributed Systems

Technical Skills

Languages: TypeScript, JavaScript, HTML5, CSS3/SCSS, Python

Frameworks & Libraries: Angular (CLI, Material, RxJS), D3.js/Chart.js, NgRx or RxJS state patterns, Angular CDK

Architecture & Patterns: Lazy loading, route guards, smart/presentational split, reactive forms, reusable design systems, accessibility (WCAG/ARIA), performance tuning (change detection, bundle splitting)

Testing & Quality: Jasmine/Karma, Jest, Cypress/Playwright, Storybook, SonarQube/ESLint, Chrome DevTools/Performance

API & Security: REST/JSON, interceptors, JWT/OAuth2 client flows, CORS/CSRF handling, HTTPS, error/retry/backoff, caching/ETag usage

Tooling & Build: Angular CLI, Webpack/Vite awareness, Nx (monorepo), Docker for FE, CI/CD (GitHub Actions/GitLab/Jenkins), feature flags

Observability: Web vitals monitoring, structured logging, Sentry or similar for FE error tracking

Delivery Targets: Nginx static hosting, CDN caching, API gateways; AWS S3/CloudFront for static assets (light cloud)

Professional Experience

Software Engineer   *Aug 2023 – Aug 2024*
Clarivate Analytics – Bangalore, India

- **Reusable UI Platform:** Led a rebuild of the shared Angular table system (dynamic cols, saved prefs, chips, Excel export) to **cut duplicate UI code by 80%+** and speed new feature delivery.
- **Filtering UX Upgrade:** Designed a two-pane filter flow with interdependent rules, revert-to-last state, chips, and clear-all to lift task completion and discoverability.
- **Chart Library Standardization:** Authored reusable **D3.js** bar/stacked/line/pie components with pluggable legends/tooltips/labels, unifying charts across modules and reducing maintenance.
- **Large-Report Exports:** Shipped PPT/PDF exports with **RxJS forkJoin** + streaming to keep long-running reports under timeouts and improve stakeholder consumption.
- **Quality & Release Cadence:** Held **90%+** FE coverage (Jasmine, SonarQube) and shipped **50+ zero-rollback** releases via lean CI/CD (Docker, Jenkins) while aligning API contracts with BE.
- **Mentorship:** Pair-led and reviewed with 2 junior Angular devs, **doubling** their sprint throughput and raising code quality.

Associate Software Engineer   *Aug 2021 – Jul 2023*
Clarivate Analytics – Bangalore, India

- **Search/Reporting UI:** Delivered Angular D3.js charts and reusable tables wired to REST APIs for advanced search/reporting, accelerating feature delivery.
- **Performance Tuning:** Introduced lazy-loaded modules and immutability patterns to **cut initial load times by 30%** and stabilize state.
- **Accessibility Lift:** Added ARIA roles, semantic HTML, and keyboard navigation to raise Lighthouse a11y to **95+**.
- **Client Security:** Implemented JWT/CORS/CSRF-safe flows, input sanitization, and error patterns to shrink incident risk.

- **Design System Adoption:** Standardized chart/filter modules with docs, adopted across **5+** modules, cutting onboarding time by **50%**.
- **Quality Baseline:** Pushed FE coverage to **90%+** (Jasmine, Protractor) and trimmed production bugs by **25%**.

Projects

Employee Management System (EMS) ⏻ ⊕ *Dec 2024 – Nov 2025*
Enterprise-grade full-stack employee management platform with real-time metrics and automated cloud deployment.
Tools: Spring Boot, Angular, PostgreSQL, AWS (EC2, RDS, S3, Secrets Manager), Docker, GitHub Actions, Jenkins

- Engineered RESTful Spring Boot APIs for multi-entity management (employees, departments, projects, tasks, locations) with pagination, filtering, and search.
- Developed a unified Angular frontend with responsive UI and integrated dashboard metrics.
- Architected an Nginx API gateway to serve the frontend and proxy backend services.
- Containerized services with Docker Compose for consistent dev/test/prod environments.
- Automated CI/CD via GitHub Actions and Jenkins to build, test, publish images, and deploy to AWS.
- Deployed backend on AWS EC2 with PostgreSQL on RDS, secured via Secrets Manager and firewall rules.
- Integrated automated test suites into CI to enforce quality and reduce regressions.

Battle Arena – Multiplayer Artillery Game Platform ⏻ *May 2024 – Present*
Browser-based artillery game platform focused on modular engine architecture, terrain-aware physics, and extensible multiplayer foundations.
Tools: Angular, Phaser 3, Spring Boot, Node.js, MongoDB, WebSockets, Docker, AWS

- Designed modular backend services (auth, matchmaking, leaderboard, gameplay orchestration) with separation between engine logic and platform services.
- Integrated Phaser 3 with Angular 17 using standalone components for terrain boundaries, slope-aware movement, and collision-constrained navigation.
- Built real-time communication primitives in Node.js/WebSockets to support turn-based multiplayer sync and matchmaking.
- Containerized frontend, game engine, and backend via Docker Compose for reproducible local dev and cloud-ready deployment on AWS.

AI-Powered Personal Finance Manager ⏻ *Feb 2025 – Apr 2025*
Full-stack personal finance platform integrating live banking data and AI-driven insights for budgeting and planning.
Tools: Flask, Streamlit, Redis, Plaid API, Docker, AWS

- Built backend APIs in Flask for transaction ingestion, categorization, budgeting logic, and analytics using live banking data via Plaid.
- Implemented AI-driven insights for spend trends, predictions, and personalized recommendations.
- Designed interactive dashboards for transaction analytics, budget tracking, and alerts; packaged with Docker for deployment readiness.
- Planned cloud deployment on AWS for scalability and production readiness with Redis for caching/queues.