

Mayank Madan

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SKILLS

Languages: Java, JavaScript, Typescript, SQL, Bash (Shell)

Frameworks and Libraries: Spring Boot, Angular, GraphQL, JUnit, Angular Material

Databases: MySQL, PostgreSQL, SQLite, MongoDB

Tools and DevOps: Docker, Git, GitHub, GitLab, Azure DevOps, AWS, Jenkins, JIRA

Specializations: Linux, Progressive Web Apps (PWA), VsCode Extension Development

EXPERIENCE

Dispension Industries Inc.

Halifax, NS, Canada

Senior Software Engineer

Dec 2024 – Present

- **Product Launch Leadership:** Spearheaded go-to-market tech strategy for SmartServ flagship beer kiosk through 3+ pilot programs and 2+ deployments, achieving over 99% vending accuracy
- **Revenue Innovation:** Architected ad revenue integration system using third-party media sourcing, creating new monetization channels for kiosk network
- **System Architecture:** Enhanced core ERP system for kiosk and inventory management, improving reliability by 30% and delivering mobile-friendly PWA with real-time notifications that boosted user engagement by 50%

Software Engineer

Dec 2023 – Nov 2024

- **Identity Verification:** Integrated Regula identity verification devices with real-time face-to-ID matching, achieving 97% accuracy for secure user authentication
- **System Optimization:** Abstracted and unified kiosk UI architecture across entire fleet, reducing deployable package size by 20% and improving maintainability
- **Automation Excellence:** Developed automated shell scripts for server configuration, reducing kiosk setup time by 30% and eliminating manual errors

Tata Consultancy Services - Office of Chief Innovation Officer (CIO)

Pune, Maharashtra, India

Senior Product Engineer

May 2021 – Nov 2022

- **Developer Productivity:** Engineered custom language server for internal high-level language with VS Code integration, boosting team development efficiency by 40%
- **API Modernization:** Led migration from legacy APIs to GraphQL, achieving 27% improvement in inter-microservice communication efficiency
- **User Experience:** Implemented real-time native notifications, offline support, and custom caching strategies, increasing user engagement by 25%

Product Engineer

June 2019 – Apr 2021

- **Team Leadership:** Led 5-engineer team to build PWA generator for no-code platform, enabling non-technical users to create installable, offline-ready applications
- **Frontend Innovation:** Enhanced internal micro-frontend framework with dynamic form widgets, data grids, and Highcharts integration, improving visualization capabilities by 20%

INTERNSHIP

Mitacs Accelerate research intern, Lab2Market x Dalhousie University

Aug 2023 – Dec 2023

Conducted comprehensive research on quality assurance practices in startup environments and their impact on long-term scalability

- Analyzed 10+ open-source code assessment tools (PMD, Checkmarx) across varying development intensities
- Developed GitHub Actions and custom SAST application optimized for seamless startup integration

Teaching Assistant and Marker, Dalhousie University

Aug 2023 – May 2024

- Supervised, mentored and assessed 150+ graduate students in Advanced Software engineering best practices and modern development methodologies

PROJECTS

SSH Watcher - Monitors logins, Detect and alert on suspicious activities (<https://github.com/MayankMadan97/ssh-watcher>)

Tech Stack: Java, SQLite, Shell Scripting, Linux

- Engineered lightweight background utility for real-time SSH login monitoring with geolocation tracking
- Implemented heuristic-based suspicious activity detection with automated IP soft-banning capabilities
- Built comprehensive admin dashboard for security analytics and alert management

Coder Gate - Code Quality Bot for GitHub (<https://github.com/MayankMadan97/coder-gate>)

Tech Stack: Java, Javascript, Angular, Spring Boot, Highcharts, GitHub Actions

- Developed intelligent GitHub Action for automated code analysis, validated across 50+ Java repositories
- Created configurable Pull Request automation based on 20+ predefined quality metrics
- Generated 10+ actionable insight visualizations for repository owners and contributors

EDUCATION

Dalhousie University - Halifax, NS, Canada - Masters of Applied Computer Science: 4.19/4.3

The NorthCap University - Gurugram, Haryana, India - Bachelor of Technology in Computer Science: 8.04/10