

- **GitHub:** <https://github.com/madhavms>
- **LinkedIn:** [www.linkedin.com/in/madhavmanohars](https://www.linkedin.com/in/madhavmanohars)
- **Portfolio:** <https://madhavms.github.io>
- **Medium:** <https://medium.com/@madhavmanohar.s>

## Summary

Senior Software Engineer with over 4 years of professional experience in UI Engineering. Skilled in designing and developing modern web-based enterprise UI solutions, UI component libraries, and micro frontends. Proficient in performance optimization of web applications.

## Education

- **Master's Degree in Computing**  
*University of East London (Jan 2022 – May 2023)*
- **Bachelor's Degree in Electronics and Communication**  
*University of Kerala (Aug 2014 – Jul 2018)*

## Skills

- **Languages & Frameworks:** JavaScript, TypeScript, React, Redux, RXJS, Node.js, Python, FastAPI
- **Database:** MongoDB, MySQL
- **Styling Solutions:** CSS3, SASS, SCSS, JSS libraries, Tailwind CSS
- **Debugging and performance:** chrome developer tools, Lighthouse audit, RAIL performance metrics
- **Testing Framework and libraries:** Jest, React Test Library, Playwright test automation
- **Test strategies:** Familiar TDD and BDD testing
- **App Bundlers:** Webpack 5, Rollup, Vite
- **Cloud Environment:** Azure, GitHub Actions CI/CD
- **Containerization and Orchestration:** Docker, Kubernetes

## Experience

### 1. Systems Engineer at Tata Consultancy Services Ltd (Jan 2019 - Present)

**Project:** Micro Widget

**Technologies:** HTML5, JS, web components, Typescript, Node, React, JSS, Webpack 5, Federated Module system, Jest

- Architected and implemented widget strategy for firm wide UI app teams
- Integrated and loaded micro frontend widgets at runtime
- Developed a CLI tool for bundling widgets into a micro frontend compatible format
- Established a client bus for interoperability between widgets
- Implemented a mechanism for persisting and saving widget state
- Reduced deployment time and improved manageability of codebases
- Achieved a 12-15% improvement in website load time through web optimization techniques

**Project:** Single Dealer Platform

**Technologies:** HTML5, JS, Typescript, Node, React, Redux, Redux-observables, RxJS, Webpack, Solace messaging, Jest

- Contributed as a UI Core team member in delivering the application framework, messaging and infrastructure, persistence mechanism, and logging infrastructure
- Handled production deployment and provided live production support at a technical level

## 2. Software Engineer at InApp Information Technologies (Jul 2018 - Dec 2018)

- Developed a full stack on a Python based knowledge graph application for internal users
- Conducted performance analysis and implemented fixes and enhancements to improve application performance

Technology: Django, Python, SQLite, JavaScript, HTML5, Java, JSP

## Personal Projects

### 1) [Micromesh Micro-Frontend Platform:](#)

- Developed a micro-frontend platform for runtime integration of micro-frontend widgets
- Global Discovery Menu and Enhanced Workspace with Tabbed Navigation
- Implemented a global discovery menu, enhanced workspace with tabbed navigation, widget showcase application, and onboarding application
- Achieved style isolation of remote widgets through shadow DOM injection
- Established a client message bus for widget interoperability
- Incorporated FastAPI for backend services and real-time streaming of stock prices
- Deployment: GitHub Actions CI/CD
- Technologies: React, Webpack 5, Module Federation, FastAPI, WebSocket

### 2) [Microfrontend Widget Showcase:](#)

- Built a showcase application for micro-frontend remote applications
- Bundled applications as federated modules
- Technologies: React, Webpack 5, Module Federation

## Achievements & Awards

1. [Service and Commitment Award](#) (Tata Consultancy Services Ltd): Recognized by TCS for 3 years of dedicated service to the organization across roles
2. [On the spot Award](#) (Tata Consultancy Services Ltd): For helping the team achieve the target of 0 backlog issues for the quarter
3. [Applause award](#) (Tata Consultancy Services Ltd): Commended for implementing business-critical features and receiving client appreciation

## Publications

1. [Micro frontend, Dynamic module loading and Orchestration](#)
2. [Micro frontend implementation with style isolation](#)
3. [Optimize Renders in React](#)
4. [Setting up Tailwind CSS with ReactJS](#)
5. [Automating Your CI/CD Pipeline with GitHub Actions](#)

## Licenses and Certifications

1. [AWS Academy Graduate - AWS Academy Cloud Foundations](#) (Issued Jan 2023)