

RAJA ARUMUGAM

Lead Frontend Developer | Technical Lead

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[LinkedIn/Portfolio link – optional]

Professional Summary

Frontend Developer with 15+ years of experience building high-performance, real-time UIs for financial trading platforms and data-intensive applications. Specialized in React, TypeScript, and JavaScript performance optimization. Expert in designing scalable UI systems for massive tick-by-tick market data streams. Proficient in browser performance tuning, memory management, and data visualization using D3.js, Highcharts, and WebSockets. Passionate about delivering efficient, high-quality frontend solutions in algorithmic trading and enterprise environments.

Core Competencies

UI Performance Engineering: JavaScript execution mechanics, memory profiling, rendering optimization

Real-time Data Visualization: D3.js, Highcharts, WebSockets, RxJS, Next.js

Frontend Technologies: React, Angular, TypeScript, Lit, Tailwind CSS, SASS, CSS-in-JS

System Design & Architecture: Modular design systems, component libraries, Webpack optimization

Testing & Quality: Jest, Cypress, React Testing Library, unit/integration/E2E testing

CI/CD & DevOps: GitHub Actions, GitLab CI/CD, Docker, AWS (S3, CloudFront, Route 53)

Accessibility & Cross-Browser Support: WCAG standards, Chrome DevTools, performance audits

Professional Experience

HCL Technologies Ltd – Senior Technical Lead

Client: Deutsche Bank, London (Remote) | Jun 2023 – Jun 2025 | Team of 12

- Architected and developed a secure, modular Trading Alert Platform with real-time analytics and marketing integration.

- Designed high-performance React and Highcharts applications with reusable component libraries.
- Engineered real-time dashboards with Next.js, D3.js, and WebSockets handling massive tick-by-tick market data.
- Conducted frontend troubleshooting and performance optimization using Chrome DevTools.
- Developed modular Design Systems using Lit + Tailwind CSS, achieving 60%+ UI reuse.
- Optimized build performance with advanced Webpack configurations, reducing load times.
- Mentored junior engineers on memory-efficient coding and performance best practices.

Tata Consultancy Services – Technical Lead

Clients: CitiBank, British Airways, Virgin Media | Dec 2013 – May 2023 | Teams 10–20

- Modernized legacy banking and media platforms for improved UI performance, SEO, and real-time data handling.
- Developed SSR-enabled, high-performance e-commerce platforms using Next.js and React.
- Built scalable design systems and component libraries, improving development efficiency by 50%.
- Integrated GTM and Google Analytics for A/B testing and marketing optimization.
- Conducted frontend performance audits, achieving Lighthouse scores of 90+.
- Led cross-functional agile teams delivering performance-critical frontend features.

HCL Technologies Ltd – Senior Front-End Engineer

Clients: Standard Chartered Bank, United Airlines | Sep 2011 – Dec 2013 | Team of 8

- Enhanced legacy banking and airline UIs for responsive performance and accessibility.
- Implemented lazy loading, caching strategies, and modular CSS architectures for optimized frontend performance.
- Conducted memory profiling and JavaScript execution flow analysis to maintain high responsiveness under heavy data load.

Technical Skills

Languages & Frameworks: JavaScript, TypeScript, React, Angular, Vue.js, Lit, Redux

Data Visualization: D3.js, Highcharts, WebSockets, RxJS

Styling & UI: Tailwind CSS, SASS, CSS-in-JS, HTML5, CSS3

Testing & Automation: Jest, Cypress, React Testing Library, Pact

DevOps & CI/CD: GitHub Actions, GitLab CI/CD, Docker, AWS (S3, CloudFront, Route 53)

Tools & Analytics: Chrome DevTools, Lighthouse, GTM, Google Analytics, Figma

Education

Bachelor of Engineering (Electronics and Communication)

Anna University, Chennai | Mar 2003 – Jun 2007