

# NAGARAJA MARKAPURAM

## Principal Frontend Architect

+91 9945404421 @ nmarkapuram@gmail.com nagaraj.dev  
LinkedIn: linkedin.com/in/nmarkapuram Bengaluru, India



## SUMMARY

Principal Frontend Architect with 20+ years building large-scale UI platforms using Angular, React, and modern JavaScript ecosystems. Experienced enabling engineering organizations of 500+ developers through shared frontend infrastructure and micro-frontend architectures.

## EXPERIENCE

### Principal Frontend Architect / Staff II UI Engineer, VMware Cloud Foundation Division

#### VMware by Broadcom

07/2011 - Present Bengaluru, India

clarity.design, vcf.broadcom.com

*VMware Cloud Foundation (enterprise cloud platform combining compute, networking, storage, and management services)*

- Managed development of Clarity Design System, delivering components adopted across enterprise products, creating framework-agnostic web components for team consistency and efficiency.
- Established frontend architecture governance standards and mentored 25+ engineers globally, while overseeing platform module development, performance optimization, and debugging.
- Architected a unified frontend platform facilitating Angular and React application coexistence through Micro-Frontends and shared design systems.
- Developed proof-of-concept applications using React and modern frontend tooling to evaluate architecture patterns and framework interoperability.
- Reviewed and guided React-based implementations across teams, ensuring adherence to architecture standards, performance best practices, and component design patterns.
- Hands-on development across Customer Connect (formerly My VMware) and VCF Business Service Console platforms.
- Improved platform performance and load times through optimized frontend architecture and modular design.
- Led AI-driven initiatives leveraging Gemini and Claude APIs to automate frontend patterns, boosting developer productivity and shortening UI component time-to-market.

### Team Leader, Frontend Engineering

#### United Online Software Development Pvt Ltd

08/2005 - 07/2011 Hyderabad, India

https://webmail.juno.com, https://my.netzero.net/start/login.do

*United Online Software is a leading provider of consumer Internet products and services*

- Led UI engineering team delivering 'Email on the Web' platform.
- Developed reusable JavaScript component framework, improving development efficiency and consistency across applications.
- Pioneered video mail and chat optimized for low-bandwidth environments.
- Optimized the web email application for the legacy browsers (IE6+, Firefox, Opera, etc...)
- Improved application performance by 30% by automating tree-shaking, optimizing stylesheets, and introducing a dedicated static asset server.

## CORE ARCHITECTURAL COMPETENCIES

Enterprise Design Systems \* Micro-Frontend Architecture \* UI Platform Engineering \* Developer Experience Platforms \* Frontend Observability \* Performance Engineering \* Frontend Governance

## KEY ACHIEVEMENTS



### Frontend Standards Definition

Defined Division-wide frontend standards for Reusable components consumption, accessibility, and performance



### VMware Innovation Hub Selection

Selected for VMware Innovation Hub for UI platform innovation



### 'At Our Best' Recognition

Recipient of 'At Our Best' recognition and Corporate Mobile Hackathon winner

## SKILLS

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### Languages

[TypeScript](#) [JavaScript \(ES6+\)](#) [HTML5](#) [CSS3](#)

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### Frontend

[Angular](#) [React](#) [RxJS](#) [Web Components \(Lit\)](#) [Tailwind CSS](#)

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### State Management

[NgRx](#) [Redux](#) [Context API](#)

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### Build, Testing & Tooling

[Vite](#) [Parcel](#) [Babel](#) [Webpack](#) [Husky](#) [Rollup](#) [Node.js](#) [Storybook](#) [Jest](#)

[React Testing Library](#) [Cypress](#) [Vitest](#) [Jasmine](#) [Protractor](#) [SonarQube](#)

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### Platform & Infrastructure

[Docker](#) [Kubernetes](#) [GitHub CI/CD](#) [Cloudflare](#) [Akamai](#)

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### Observability & APIs

[Dynatrace](#) [ThousandEyes](#) [Apache Superset](#) [GraphQL](#) [REST APIs](#)

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### AI Tools

[Cursor](#) [Claude](#) [ChatGPT API](#) [Gemini](#)

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### Architecture

[Micro-Frontends](#) [Module Federation](#) [Nx Monorepos](#) [Component-Driven Development](#)

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## EDUCATION

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**Bachelor of Technology in Electronics and Computer Stream**

**Acharya Nagarjuna University**

- 82% (University 3rd Rank)