



# Praveen Venigalla

Software Developer | React.Js | Node.JS | Typescript

## Summary

Over five years of expertise in building and deploying numerous robust web applications and cloud services to production. Skilled in developing scalable APIs, data-driven dashboards, authentication workflows, and payment gateways, with a focus on data caching, software upgrades, and performance optimizations.

Proficient in integrating databases, APIs using Docker, Docker compose & Azure pipelines.

Experienced working within fast-paced agile teams, adept at managing tight deadlines & maintaining strong stakeholder relationships, skilled in mentoring junior developers and writing excellent documentation, and committed to continuous learning and technology adaptation.

## Education

- Information Technology** *Sep 2017 - April 2019*  
Postgraduate Degree, Humber College, Canada
- Electrical Engineering** *Sep 2012 - April 2016*  
Bachelor of Technology, JNTU Kakinada, India

## Contact

- <https://praveen.wiki>
- [praveenv.aiesec@gmail.com](mailto:praveenv.aiesec@gmail.com) | 647-904-5999
- <https://linkedin.com/in/praveen-venigalla/>
- <https://github.com/venigallapraveen>
- Ottawa, Canada

## Core Competencies

- **Front End**  
React.Js Next.js Redux React-Query Javascript PWAs ES6 Html5 Css3 Typescript Web hooks Web Workers
- **Back End**  
Node.Js Express.Js RestAPI Fuse.JS Lodash JWT Socket.IO Git Stripe WebRTC Axios Swagger Winston
- **Databases**  
MongoDB Sql Redis PostgreSQL GunDB AWS S3
- **Other**  
Nginx Azure Azure-pipelines Jest (Unit Testing) Github Git Dokku Digital Ocean Azure Docker Webpack Kafka JIRA Confluence Sketch Balsamiq

## Experience

### 1 Spiria | Software Developer

*Apr 2022 - Present*

#### Roles & Responsibilities

- Developed and deployed critical and production-ready software solutions for Spiria's multinational clients, including Lyft (PBSC), Searidge, Seaways, NATS and Calian.
- Engineered several mission-critical frontend and backend systems and mobile applications and wrote numerous docker, docker-compose and Azure pipeline scripts to deploy these services to production cloud environments.
- Actively participated in enhancing the performance, streamlining maintenance, and stabilizing the overall functionality of Spiria's in-house projects.

#### Key Achievements

- PBSC Lyft:** Enhanced their mobile app's battery efficiency by at least 35% by reworking the legacy location pinning services using React Query and introducing various energy consumption modes to minimize overall battery usage.
- Searidge:** Boosted page load times and responsiveness of their airport data visualization app by at least 50% by offloading intense data compute functions to web workers to lessen the load on the browser's main thread.
- NATS:** Developed and deployed a full-stack app using Next.js, Node.js, Kafka, and socket.io to enable real-time communication between pilots and air traffic operations (ATO) for aircraft ground clearances. Integrated offline capabilities using Next-pwa and oAuth flow using FusionAuth.
- Spiria:** Upgraded an in-house timesheet management app by migrating from React v16 to v18 and updating react-scripts to v4. Fixed and updated all NPM dependencies to their latest versions. Additionally, integrated an API queue mechanism to execute batched and timely parallel requests, enhancing the application's API performance.

**Tech stack:** React, Redux, React Query, Web Workers, Axios, Axios Interceptors, Node JS, ES6, Hooks, Postgres, Fuse.JS, Plotly.js, AmCharts, JWT, Cookies

### Roles and Accomplishments

1. Built several production-ready interactive data-driven dashboards that deliver AI & IoT optimized intelligent insights to effectively and efficiently manage the energy resources of different local and international power plants.
2. Designed & Developed an EV Fleet Orchestration tool to forecast and efficiently manage real-time energy requirements of different electrical vehicles using AI.
3. Designed and developed Portal, a data-driven, internal config tool that lets Bluwave-ai users provision and query different AI Edges, IoT devices and gateways and their data.
4. Engineered ATLAS, a state of art powerful visualization tool to visualize millions of real-time IoT sensor data. This tool lets users create and share different on-demand data-driven dashboards.

### Key Achievements

1. Designed an in-house authentication system using JSON web tokens and Node JS to manage the security requirements of different client-side applications efficiently.
2. Used custom-developed data structure to reduce the size of dashboard payloads from 1Mb to ~100kb.
3. Improved the load times of all dashboards by at least 50% by lazy loading, using web workers to compute complex client-side computations and client-side caching etc.
4. Enabled several advanced features such as query using different time ranges, deep links, support different time-zones, user-level permissions, page-level permissions, detail views of dashboards, real-time binning and parsing of client-side data etc.

## Personal Projects

### 1 TwoStones | A no code social networking platform to create online portfolio sites and digital resumes.

**Tech stack:** React, React Hooks, React-query, Redux, NodeJs, Storj (Decentralized Database), Supabase, Digital Ocean, Dokku & Cloudflare.

**Live Link:** <https://twostones.io/u/praveen/home/about>

**Description:** Implemented a range of features to enhance user engagement and functionality, including user authentication, unique usernames, and email verification using Supabase.Js. I also developed an on-demand portfolio site and digital resume feature, allowing users to add multiple pages, up to 1000 articles, and share these using deep links. A markdown editor was integrated for easy article writing and editing. Additionally, I created a digital library where articles are stored and made searchable. The backend, built on NodeJs, supports thousands of users and includes a rate limiter to prevent server overload. For deployment and data security, I utilized Digital Ocean, Cloudflare, Dokku, and StorJ, ensuring a robust, scalable infrastructure for this app.

### 2 Ardra Hydraulics | A custom-built portfolio and e-commerce website for Ardra hydraulic products.

**Tech stack:** Next.js, Typescripts, Supabase, NodeJs, Docker & Cloudflare.

**Live Link:** <https://ardra.co>

**Description:** Engineered a modern, responsive website using Next.js, optimized for performance and user experience, with backend API integration via Supabase for efficient product management. Implemented secure authentication flows and dynamic contact forms using FormSubmit, enhancing user interaction and communication. Additionally, the site was designed to be fully responsive and accessible on various devices, boosting user engagement.