Davanesh Saminathan

Full Stack MERN Developer | React Native Developer | AWS Enthusiast

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🔗 LinkedIn | 🔗 GitHub | 🌐 Portfolio

Skills

Languages:

- **C, Python, JavaScript, TypeScript, SQL**
- **Data Structures & Algorithms (DSA) - JavaScript, Python, C**

Technologies & Tools:

Frontend Development:

- **HTML, CSS, JavaScript, React.js, React Native, Three.js, Next.js**

Backend Development:

- **Node.js, Express.js, SQL, MongoDB**

UI/UX Design:

- **UI/UX Design Principles, Figma**

Version Control & Collaboration:

- **Git, GitHub**

Cloud Computing:

- **AWS Cloud Technical Essentials**

Containerization & Deployment:

- **Docker, Kubernetes, OpenShift**

Professional Summary

A passionate and results-driven Full-Stack Web Developer with experience in building modern, scalable applications using technologies like React.js, Node.js, Express.js, MongoDB, AWS, and Next.js. Skilled in both frontend and backend development, with a strong focus on creating seamless user experiences through UI/UX design principles. Adept at collaborating with cross-functional teams, leveraging version control (Git/GitHub), and optimizing applications for performance and scalability. Excels in fast-paced environments and is committed to continuous learning, currently deepening expertise in cloud computing, Docker, and Next.js. Aiming to bring technical proficiency and creative problem-solving to a dynamic development team.

PROJECTS

Real Estate Website — *Built using React.js & Node.js (GitHub: Link to Project)*

Project Description:
Developed a marketplace platform for buying and selling properties. The website allows real estate agents to upload 360-degree property images and provides potential buyers with interactive virtual tours, search filters, and detailed property information.

Key Features:

- **Virtual Reality Tours:** Integrated 360-degree property images to offer users immersive virtual tours of properties.
- **Search Filters & Sorting:** Users can filter and sort properties based on criteria like price, location, and size for a more personalized experience.
- **Responsive Design:** Optimized for desktop, tablet, and mobile devices to ensure seamless browsing across devices.
- **User Accounts & Authentication:** Implemented user authentication using Firebase and JWT (JSON Web Token), allowing users to create accounts, save favorite properties, and inquire about listings.
- **Admin Dashboard:** Created an intuitive admin dashboard for real estate agents to upload and manage property listings.

Technologies Used:

- **Frontend:** React.js, CSS3, HTML5, JavaScript ES6, Three.js, Redux
- **Backend:** Node.js, Express.js
- **Database:** MongoDB Atlas
- **Authentication:** Firebase, JWT
- **Cloud Storage:** AWS S3 (for storing property images)

Challenges Faced:
Faced challenges related to integrating the 360-degree images for virtual tours and managing real-time data updates. Overcame these by using Three.js for seamless 3D rendering and integrating Redux for efficient state management.

Outcome:
Successfully built a fully functional, responsive real estate marketplace that enables users to take virtual tours and manage property listings. This project sharpened my skills in frontend and backend development, API integration, JWT authentication, and cloud services, preparing me for complex web application development.

Full Stack Google Drive Clone — *Built using Next.js & Node.js (GitHub: Link to Project)*

Project Description:
Developed a full-stack Google Drive clone that allows users to upload, manage, and share files. The platform offers secure cloud storage with features like file storage, user authentication via OTP, and file sharing via email, mimicking core functionalities of Google Drive.

Key Features:

- **File Upload & Management:** Allows users to upload files, organize them in folders, and manage file metadata (name, size, type).
- **User Authentication:** Implemented secure authentication using OTP (One-Time Password), providing a secure sign-in method without relying on passwords.
- **File Sharing via Email:** Users can share files with others by generating email links and setting access permissions for viewing or editing.
- **Responsive Design:** Optimized for desktop, tablet, and mobile devices, ensuring seamless file management across devices.

Technologies Used:

- **Frontend:** Next.js, React.js, CSS3, HTML5, JavaScript ES6, Tailwind CSS
- **Backend:** Node.js, Express.js
- **Database:** MongoDB
- **Authentication:** OTP (One-Time Password)
- **Cloud Storage:** Appwrite (for file storage)
- **Email Service:** Nodemailer (for email-based file sharing)

Challenges Faced:
Faced challenges implementing OTP-based authentication and ensuring seamless file sharing via email. Overcome these challenges by integrating OTP generation and verification through a secure API and using Nodemailer to handle email functionality.

Outcome:
Successfully built a feature-rich Google Drive clone with a full-stack architecture, demonstrating skills in OTP authentication, email-based file sharing, cloud storage integration with Appwrite, and full-stack development with Next.js. This project enhanced my knowledge of secure authentication methods, file sharing, and cloud services.

Real-Time Google Docs Clone — *Built with Next.js, React, Tailwind CSS*

Project Description:
Currently working on a **real-time Google Docs clone** that allows users to create, edit, and share documents with others. The platform offers real-time collaborative editing, messaging, and notifications, making it ideal for teams to work on documents together seamlessly.

Key Features:

- **Real-Time Collaborative Editing:** Users can edit documents in real-time, with changes instantly visible to all collaborators.
- **Real-Time Messaging:** Integrated a messaging feature that allows users to chat with friends or team members while working on the document.
- **Real-Time Notifications:** Implemented a notification system to alert users about document edits, new messages, or other important updates.
- **User Authentication:** Secure user authentication to allow users to sign in and access documents they have created or are collaborating on.
- **Responsive Design:** Optimized for desktop, tablet, and mobile devices, ensuring a smooth user experience across different screen sizes.

Technologies Used:

- **Frontend:** Next.js, React.js, Tailwind CSS, JavaScript ES6
- **Backend:** Node.js, Express.js
- **Database:** Firebase Firestore (for real-time data sync)
- **Authentication:** Firebase Authentication (for secure user login)
- **Real-Time Communication:** Firebase Realtime Database (for document collaboration and messaging)
- **Notifications:** Firebase Cloud Messaging (for real-time notifications)

Challenges Faced:
The main challenges involved syncing document edits in real-time and ensuring smooth messaging and notification functionalities. Overcome these challenges by leveraging Firebase's real-time database and Cloud Messaging, enabling instant updates and notifications.

Outcome:
This project demonstrates my ability to build real-time collaborative applications, integrate messaging and notification features, and work with cutting-edge technologies like **Firebase** and **Next.js**. It’s an ongoing project that enhances my skills in real-time communication, full-stack development, and cloud integration.

Direct Farmer-to-Consumer Grocery App — *Built using React Native & Node.js*

Project Description:
Developed a mobile application enabling consumers to purchase groceries directly from farmers, offering a negotiation feature for customized pricing. The app enhances transparency, eliminates intermediaries, and empowers farmers to reach a broader audience.

Key Features:

- **Dual Login System:** Separate login interfaces for buyers and sellers, ensuring role-specific functionalities. Buyers can explore products as guests, while sellers can manage inventory and orders.
- **Negotiation Mechanism:** Supports three types of negotiation:
    - **Product-Based Purchase:** Customers negotiate prices for individual items.
    - **Bulk Purchase:** Discounts for purchasing large quantities.
    - **Frequent Purchase:** Incentives for repeat buyers.
- **Multilingual Support:** Language switch system with English (default), Tamil, and Hindi for wider accessibility.
- **Payment Integration:** Enabled secure and seamless payment processing.
- **AI Chatbot:** Provides users with real-time market trends, including demand-based pricing and product availability.
- **Communication Tools:** Integrated call and voice messaging features for direct communication between buyers and sellers.

Technologies Used:

- **Frontend:** React Native (for cross-platform mobile development)
- **Backend:** Node.js, Express.js
- **Database:** MongoDB
- **Authentication:** Firebase Authentication
- **Payment Gateway:** Integrated via Firebase
- **AI Features:** Implemented with Python Chatterbot
- **Multilingual Support:** i18n library or similar for language switching

Challenges Faced:
Overcame challenges in implementing the negotiation system and ensuring real-time communication between buyers and sellers. Additionally, optimized performance for low-bandwidth areas to enhance accessibility.

Outcome:
The app successfully connects farmers and consumers, promoting fair trade and reducing costs. This project enhanced my expertise in mobile app development, payment gateway integration, and real-time communication.

Education

Bachelor of Technology (B.Tech) — Computer Science and Engineering (CSE)
Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai
August 2023 - december 2027

Relevant Coursework: Data structures and algorithms, Database, Discrete mathematics, Python, C

Certifications

AWS Cloud Technical Essentials — *Amazon Web Services (AWS)*

- Learned fundamental cloud concepts, AWS services, and cloud architecture.

Advanced React — *Meta*

- Gained advanced knowledge in React.js, including hooks, state management, and performance optimization.

Programming with JavaScript — *Meta*

- Mastered JavaScript concepts including ES6+, asynchronous programming, and DOM manipulation.

HTML and CSS In-Depth — *Meta*

- Built a strong foundation in semantic HTML, responsive design, and modern CSS features.

Introduction to Containers w/ Docker, Kubernetes & OpenShift — *IBM*

- Gained hands-on experience with containerization technologies, Kubernetes orchestration, and deploying applications using OpenShift.

Developing Back-End Apps with Node.js and Express — *IBM*

- Mastered building scalable back-end applications with Node.js and Express.js, including routing, middleware, and API creation.

Node.js & MongoDB: Developing Back-end Database Applications — *IBM*

- Learned to integrate Node.js with MongoDB for building full-stack applications, focusing on CRUD operations and database design.

UI/UX Design Principles — *Meta*

- Covered user-centric design, wireframing, and prototyping with tools like Figma.

Version Control with Git — *Meta*

- Learned Git commands, branching, and collaboration using GitHub.