THUSHAN MALAKA RANASINGHE

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Profile

Results driven Full-Stack Developer with proven expertise in building production grade web applications across the entire development lifecycle. Demonstrated ability to deliver enterprise solutions through a 6-month internship at Sri Lanka Telecom, where I architected a full-stack Service Desk system integrating Azure AD authentication and real-time communications. Proficient in modern tech stacks including React, NestJS, and PostgreSQL, with a strong foundation in RESTful API design, secure authentication protocols, and cloud deployment. Experienced in translating complex requirements into scalable, maintainable code while collaborating effectively in Agile environments. Passionate about crafting user-centric solutions and continuously expanding technical capabilities through hands-on project work spanning real-time chat systems and task management platforms.

Skills

- **Programming Languages**: TypeScript, JavaScript, Python, Java, C++, HTML5, CSS3
- **Frontend Development**: React.js, Next.js, React Native, TailwindCSS, DaisyUI, Zustand, Vite, Expo, Redux, Axios
- **Backend Development**: Node.js, NestJS, Express.js, Socket.io, RESTful APIs, TypeORM, Mongoose, Nodemailer
- **Databases and Cloud**: PostgreSQL, MongoDB, MySQL, SQLite, Firebase, Cloudinary, Azure AD, Vercel, Render
- **Tools & Methodologies:** Git, GitHub, Jira, Agile, TypeORM, Firebase

Work Experience

- **Software Engineering Intern - Sri Lanka Telecom (SLT) Colombo, Sri Lanka**
  Mar 2025 – Sep 2025
  - Engineered "sDesk," a comprehensive Service Desk ticketing system using React, NestJS, and PostgreSQL, replacing manual workflows with a centralized digital solution.
  - Integrated Microsoft Azure Active Directory (Azure AD) to enable Single Sign-On (SSO) and secure user synchronization for hundreds of enterprise users.
  - Accelerated incident resolution times by 20% by developing a real-time broadcasting module using Socket.io, allowing technicians to receive instant alerts without page reloads.
  - Optimized backend performance by designing efficient RESTful APIs and database schemas, ensuring system reliability under high-concurrency loads.
  - Collaborated within an Agile team environment, utilizing Jira for sprint planning and Git for version control to maintain a clean production codebase.

Education

- **Bachelor of the Science of Engineering (BSc Eng) in Computer Engineering**
  University of Jaffna (Apr 2021 – Nov 2025)

Projects

- **TMchat** 🔗 :

- Built a real-time chat application using MongoDB, Express, React (Vite) and Node.js with Socket.io for instant messaging.
- Implemented secure JWT + secure-cookie authentication, protected routes, rate limiting and bot protection (Arcjet).
- User features: profile management with Cloudinary avatars, online presence, and email notifications (Resend/Nodemailer).
- Frontend: responsive dark-themed UI using TailwindCSS + DaisyUI, Zustand for state, Axios for API calls.

  Key Technologies : Node, Express, MongoDB, Socket.io, JWT, Cloudinary, Arcjet, Nodemailer, React, Vite, TailwindCSS, DaisyUI

- **TMdent** 👓 :

  - Developed a modern full-stack dental appointment platform using Next.js, PostgreSQL, and Prisma for type-safe database management.
  - Implemented secure user sessions via Clerk and admin dashboard for managing doctors and appointment schedules.
  - Automated email confirmations Nodemailer and AI voice integration (Vapi) and UI built with TailwindCSS.

    Key Technologies : Next.js, React, PostgreSQL, Prisma, Clerk, TanStack Query, TailwindCSS, Nodemailer, Vapi

- **Task Manager** 👓 :

  - Built a modular task management backend using NestJS, TypeScript, and PostgreSQL.
  - Implemented REST APIs with JWT authentication and role-based access control.
  - Integrated TypeORM for database modeling and migrations.
  - Designed the system for seamless consumption by a React frontend.
  - Deployed using Render, Vercel, and Neon.

    Key Technologies : NestJS, TypeScript, PostgreSQL, TypeORM, React, JWT, Render, Vercel, Neon

- **Tasklet** 👓 :

  - Developed a productivity mobile app using React Native, Expo, and TypeScript.
  - Implemented shopping lists, task countdown timers, and idea notes with persistent AsyncStorage.
  - Added haptic feedback, confetti animations, and push notifications.

    Key Technologies : React Native, Expo, TypeScript, AsyncStorage, date-fns, push notifications, haptics

- **Beat Music** 👓 :

  - Created a music platform using Next.js, React, TypeScript, and TailwindCSS.
  - Implemented Firebase Authentication with email/password and Google sign-in.
  - Built a lyric-aware music player with playlists and sample releases.
  - Designed a clean, responsive UI for smooth user experience.

    Key Technologies : Next.js, React, TypeScript, TailwindCSS, Firebase Authentication

Certifications and Awards

- **Python Data Structures (Sep 2020)**
- **Google IT Support (Nov 2020)**
- **Introduction to Web Development (Aug 2020)**
- **React Native (Jun 2025)**

- **IEEE Xtreme 17.0 (Oct 2023)**
- **IEEE Xtreme 16.0 (Oct 2022)**

Soft Skills

- Problem-Solving & Critical Thinking.
- Team Collaboration & Communication.
- Adaptability & Continuous Learning.

References

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