# **ALAN NIXON**

#### MERN Stack Developer

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## **Profile Summary**

With a comprehensive background in the MERN stack, successfully completed two major projects and numerous sub-projects and cloned websites. Excel at solving complex problems efficiently and effectively, with high debugging skills, ensuring optimal performance and user experience. Proficient in front-end development with a strong emphasis on creating responsive and user-friendly websites. Skilled in utilizing modern development tools and frameworks to deliver high-quality web applications.

### Technical Skills

- Programming Languages: JavaScript, TypeScript, HTML, CSS
- Back End Development: Node.js, Express.js, NestJS, Microservices, Django
- Web API, Communication Protocols: REST, gRPC, RabbitMQ, Socket.IO, WebSocket, WebRTC, GraphQL
- Front End Development: React, Next.js, Redux, Tailwind, Bootstrap, MUI, Vanta.js
- Database: MongoDB, PostgreSQL, Redis
- Tools: Git, GitHub, Docker, Postman, GitLab, Figma
- Expertise in: NPM packages, Data Structures & Algorithms
- Familiar with: AWS, Firebase, C, Java, Python (Basics)
- Architecture: Clean Architecture, MVC Architecture, Repository Architecture

# **Projects**

#### AV Stream - Streaming Web Application

Live Link | GitHub

AV-Stream is a user-friendly platform for streamers. The platform allows users to upload videos, post short content, and watch videos from other creators. Users have wallet includes payment integrations with **Razorpay** and **PayPal**. Each user has a unique QR code for easy profile sharing. Users can chat each other if they are following

- Built using a **microservices architecture** with four key services: chat, user, stream, and comment services. The comment service is developed in **Python Django**.
- Implemented Express.js on top of Node.js and followed Clean Architecture with Microservices.
- Used RabbitMQ and gRPC for efficient interservice communication.
- Enabled real-time interaction through chat using **Socket.IO** and video calls using **Zegocloud**.
- Used own **npm packages**: userauthenticationforavstreams, util-functions-nodejs, user-random-name-generator.
- Deployed on AWS EC2 and frontend on Vercel.
- Technologies used: Node.js, Express, TypeScript, MongoDB, React.js, Tailwind, Redux, Microservices, WebRTC, Docker, AWS, Vercel, Socket.IO, Zegocloud.

### AV Shops E-Commerce

Live Link | GitHub

An **E-Commerce** website for selling processors, allowing customers to browse and purchase products online. Features include a user-friendly interface, secure payment system, account creation, order tracking, reviews, and wishlists.

- Engineered a user-friendly interface with features like an intuitive shopping cart and easy checkout.
- Implemented Razorpay for secure payment processing.
- Integrated a robust admin panel with order management tools.
- Deployed using AWS EC2 with Nginx, Certbot, and PM2.
- Technologies used: Node.js, Express, MongoDB, Bootstrap, AWS EC2, Nginx, PM2, Certbot, Razorpay.

### Mini Projects

#### Utility-hub - URL Shortener, Password Generator, Online Note Saver

GitHub

Developed a tool that includes a URL shortener, password generator, and online note saver. Users can customize passwords by specifying parameters like length and character types.

• Technologies Used: Vite + React, Firebase

Blog platform GitHub

This is a blog uploading and reading platform written in micro service, followed  $\mathbf{g}\mathbf{R}\mathbf{P}\mathbf{C}$  for inter service communication

• Technologies Used: Microservice, Grpc, Node, React

OLX Clone GitHub

A clone of OLX designed using **React**. Utilizes **Firebase Auth** for user authentication and **Firebase Storage** for storing product images.

• Technologies Used: Firestore, React.js

#### Jarvis - Command Executer

GitHub

The AI-Powered Linux Assistant is an intelligent system designed to assist users by executing commands in a Linux terminal through voice or text-based instructions. Built using Node.js and leveraging the child process module

• Technologies Used: Node js, Child Process, Wikipedia API, Youtube API

# **Open Source**

Npm Packages - 5 Open source contributions to npm.js, helpful for projects.

- util-functions-nodejs: Package designed to simplify time-related calculations, validations, OTP generation.
- userauthentication: Package designed for the authentication purpose using JWT and Passport
- user-random-name-generator: Package used to generate unique and meaningful name for user
- airport-nodejs: Package desingned to retrieve information of aiports in world wide and details of the airport
- ullet expiring-token-generator: Package used to create a unique token using **JWT** just like unid module

#### Education

**MERN Stack Development** 

2023 - Present

Brototype, Kochi

Plus Two - Computer Science

2022 - 2023

ST Thomas HSS Thope, Thrissur

Percentage: 86%