

# AMRITH KUMARESAN

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## EDUCATION

BS+MS Biotechnology	Indian Institute of Technology, Madras	7.5/10	2025
XII (Sr. Secondary) CBSE	Vidyashram Public School, Kota	85.2 %	2019
X (Secondary) CBSE	Vidyashram Public School, Kota	85.5 %	2017

## TECHNICAL SKILLS

C/C++, JavaScript , React , Node.js, Express.js, MongoDB, SQL, Git, Tailwind CSS, CSS, HTML, Docker, Redis

## PROFESSIONAL EXPERIENCE

Matterize <i>(Full-stack Intern)</i>	<p>Matterize helps turn complex scientific concepts into engaging, accessible <b>3D animations &amp; simulations</b></p> <ul style="list-style-type: none"><li>Built a dynamic <b>MERN-stack</b> dashboard by significantly improving operational tracking efficiency by <b>40%</b></li><li>Streamlined <b>RESTful API</b> processes reducing average latency by <b>20%</b>, improving overall system efficiency</li><li>Automated routine API testing workflows using <b>Postman</b> and significantly cutting debugging cycles by <b>30%</b></li></ul>
FALCO <i>(Backend Intern)</i>	<p><b>Mobility startup</b> developing an innovative app for <b>seamless and sustainable</b> transportation solutions</p> <ul style="list-style-type: none"><li>Designed &amp; deployed <b>RESTful APIs</b> with <b>Express.js</b>, <b>Node.js</b>, &amp; <b>MongoDB</b> for dynamic content delivery</li><li>Enhanced application security by <b>JWT-based</b> authentication, <b>OTP verification</b>, and user data management</li><li>Significantly improved software with thorough testing and documentation, boosting performance &amp; efficiency</li><li>Leveraged <b>Google API</b> for diverse functionalities including <b>email services and OTP verification</b> processes</li></ul>

## RELEVANT PROJECTS

### 1. E-Commerce Website – Full-stack Web Application [\(Link\)](#)

**Tech Stack:** React (Vite), Node.js, Express, MongoDB, Redis, Stripe API, Zustand, Tailwind CSS, DaisyUI

- Created scalable e-commerce platform with authentication, **cart, coupon, and payment functionalities**
- Implemented secure authentication flow using **Redis** managing, caching & validate access & refresh tokens
- Learned & Integrated **Stripe API** to enable smooth, secure, seamless & efficient online payment processing
- Developed **separate admin routes** for managing products, viewing sales, and monitoring platform activity
- Implemented **Zustand** for **global state management** and styled frontend with **Tailwind CSS** with **DaisyUI**

### 2. Twitter-Clone – Full-stack Web Application [\(Link\)](#)

**Tech Stack:** React (Vite), Node.js, Express.js, MongoDB, JWT, TanStack Query, Tailwind CSS, DaisyUI

- Developed full-stack social media platform with posts, comments, likes, threaded discussions, and profiles
- Implemented secure **JWT authentication & Restful APIs** handling login, logout, & middlewares efficiently
- Built features for creating posts, uploading photos, commenting, following users, and dynamic suggestions
- Styled frontend using **Tailwind CSS & DaisyUI**, managed state with **TanStack Query**, deployed on Render

### 3. Video Call & Chat Application – Full-stack Web Application [\(Link\)](#)

**Tech Stack:** React, Node.js, Express, MongoDB, Mongoose, GetStream.io, TanStack Query, Zustand

- Built real-time video call & chat platform using **GetStream.io WebSocket APIs** for seamless communication
- Implemented secure **JWT authentication** ensuring protected user sessions & consistent authorization flow
- Utilized **TanStack Query and Zustand** for efficient data management and real-time state synchronization
- Designed modern, responsive UI with **Tailwind CSS & DaisyUI** supporting **32 dynamic theme** customization

### 4. SaaS Dashboard – Multi-Tenant Full-stack Web Application [\(Link\)](#)

**Tech Stack:** React (Vite), Node.js, Express.js, MongoDB, JWT, TanStack Query, Tailwind CSS, DaisyUI

- Built a **multi-tenant SaaS dashboard** enabling isolated company workspaces & for secure data separation
- Implemented **JWT authentication & role-based access control** separate for admins & company members
- Separate routes only **accessible by the admin** like inviting members and upgrading plan from free to pro
- Responsive frontend with **Tailwind CSS & DaisyUI**, efficient data fetching/updating using **TanStack Query**

## EXTRA CURRICULAR ACTIVITIES

E-Sports	Secured <b>4th</b> Position in <b>National Inter-College Valorant</b> tournament during <b>Shaastra '22</b>
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