



ABIN BABU

MERN Stack Developer

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PROFILE SUMMARY

Self-taught full stack developer with a strong foundation in the MERN stack and a passion for solving real-world problems through clean, scalable code. Thrives in collaborative environments, values clear communication and enjoys turning complex challenges into simple, user-friendly solutions. Always exploring new technologies and loves building applications that make an impact.

TECHNICAL SKILLS

- **Languages:** JavaScript, TypeScript
- **Frontend:** React.js, Next.js, Redux, HTML, CSS, Tailwind CSS, Bootstrap
- **Backend:** Node.js, Express.js, NestJS, REST APIs, Clean Architecture, Microservices, Kafka
- **Databases:** MongoDB, MySQL, PostgreSQL
- **Integrations:** Razorpay, AWS S3, Cloudinary, Nodemailer, Multer, Socket.IO, Firebase
- **Deployment:** AWS EC2, NGINX, Kubernetes, Google Cloud Platform, Render, Vercel
- **Tools/Platforms:** Git, Docker, CI/CD Pipelines, GitHub Actions, Postman, Figma
- **Expertise in:** Data Structures and Algorithms
- **Familiar with:** C, C++, Java, Python, PHP

Projects

Atomica – Collaborative Coding Application

[Live Link](#) | [GitHub](#)

A beginner-friendly collaborative coding platform where developers can practice solving problems, take quizzes, and collaborate in real-time. Built to support learning and teamwork, the platform encourages growth through coding contests, community support, and progress tracking.

- Developed a real-time code collaboration environment using **Socket.io** and state management with **Redux** to enable smooth pair programming experiences.
- Built an MCQ and problem-solving module with custom compiler integration using **Node.js**, **vm2**, and **Express.js** to support evaluation of code submissions.
- Implemented a badge reward system and hosted timed contests to promote user engagement, backed by distributed event handling with **Kafka**.
- Followed a robust **Microservices Architecture** with domain separation and maintained **Clean Code** principles across all services using **TypeScript**.
- Leveraged **Docker** for containerization and deployed the services in **Google Kubernetes Engine (GKE)** for high availability and auto-scaling.
- Developed frontend using **Next.js (TypeScript)** with server-side rendering and modular UI components to ensure responsive and fast user experiences.
- Stored and managed data using **MongoDB** with proper indexing for fast retrieval in user submissions, leaderboard rankings, and quiz results.

Cakekart – E-Commerce Application

[Live Link](#) | [GitHub](#)

A fully functional e-commerce platform designed with separate interfaces for Admin and User roles. The application supports end-to-end features from product management to secure checkout, tailored for a smooth shopping and management experience.

- Built modular collections for products, categories, banners, and brands using **Mongoose** and **MongoDB** for efficient data structuring.
- Enabled personalized user features such as wishlists, carts, coupons, and reviews through session handling with **Express-session**.
- Implemented dynamic offers and discounts based on product and category logic with seamless frontend integration using **Handlebars**.
- Secured payment flow with **Razorpay** gateway integration and implemented OTP-based authentication using **Nodemailer**.
- Created an Admin dashboard for real-time order monitoring, user management, and offer creation using **Node.js** and **Express.js**.
- Used **Multer** for image uploads and hosted the app on **AWS EC2**, ensuring production-grade deployment with process management via **PM2**.

MINI PROJECTS

URL Shortener

[Live Link](#) | [GitHub](#)

A web application to shorten and manage URLs with secure authentication and user-specific tracking.

- Integrated link shortening via **TinyURL API** with unique redirection handling.
- Developed login and registration flow using **Nest.js** for secure user authentication.
- Stored and managed user and URL data efficiently using **MongoDB**.
- Built frontend using **React.js (TypeScript)** and deployed the full stack on **Render**.

PDF Extractor

[Live Link](#) | [GitHub](#)

A tool to upload, manage, and reorganize PDF files with a user-friendly interface.

- Enabled PDF upload, content visualization, and manipulation using **PDF-lib**.
- Built page-level features like rearranging, deleting, and extracting using **React.js (TypeScript)**.
- Handled file processing and server-side logic using **Node.js (TypeScript)** and **Express.js**.

EDUCATION

MERN Stack Development

Brototype, Chennai

2024 – Present

[Certificate](#)

BCA

College of Applied Science, Mavelikara
First Class

2020 – 2023

Higher Secondary

NSBHSS, Mannar
Percentage: 97.25%

2018 – 2020