Aadarsh Prajapati

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Skills

Languages: JavaScript, C, C++, Java, Python

Frameworks: Node.js, Express, Fastify, Next.js, React, Spring Boot, FastAPI

Tools: Docker, Redis, PostgreSQL, MongoDB, WebRTC

Area of Interest: DevOps, System Design, Data Science, Rust, Web3

Experience

SDE - Intern / Kasicare - remote *Oct 2024 – Present*

- **Architected a library and community platform** for selling and sharing digital resources, integrating a **secure payment system** for error-free transactions and scalable monetization.
- **Optimized storage efficiency** by preventing redundant S3 uploads through resource-link mapping, saving costs and **enhancing user experience** by eliminating unnecessary re-uploads.
- **Implemented dynamic version control**, enabling seamless updates to resources without duplication, ensuring access to the **latest versions** for end users.
- **Automated workshop pass generation** with QR codes containing all necessary details, improving operational efficiency and reducing manual intervention.
- Added a **team-based access control feature**, ensuring only therapists within a team can create and edit client details, reinforcing **data security and privacy**.
- **Developed a resource-sharing feature**, allowing therapists to add digital resources from the library, assign a price, set view/download permissions, and share secure links with end users for direct purchase or access.
- Built a revenue tracking module for therapists, enabling them to **monitor earnings** from sold library resources and view detailed transaction history, fostering transparency and trust.
- **Enhanced advanced search and filter capabilities**, significantly improving resource discovery and **user satisfaction**.
- Resolved complex data inconsistencies and optimized server performance by implementing **MongoDB Aggregation Pipelines**.
- **Automated sitemap generation** for dynamic content, enabling therapists who create accounts on the platform to have their own **professional websites** generated automatically. These websites allow therapists to **sell resources, add workshops, and manage other dynamic content**. I implemented a scalable solution to periodically generate and submit sitemaps for all therapists' individual sites, dynamically including their content, such as resource links, workshop details, and other updates. This automation improved **SEO rankings**, boosted site visibility for therapists, and ensured that all dynamic changes were promptly indexed by Google Web Crawler.
- **Built a revenue tracking feature** for therapists to monitor **earnings from sold library resources**, with detailed transaction history and performance insights, ensuring transparency and financial clarity.

Full-Stack Engineer / amFOSS - Amritapuri, India *Nov 2022 – Aug 2023*

- **Engineered full-stack applications** with a focus on performance, security, and cost efficiency, delivering solutions that met high standards of quality and scalability.
- **Automated daily tasks** by developing custom bots, significantly improving productivity and reducing manual workload for team members.
- **Refactored codebases** for optimal performance, maintainability, and security, while **optimizing deployments** to ensure robust and reliable application performance.

Projects

Exchange Platform – Node.js | Docker | Redis | PubSub | Microservices *GitHub Repo*

- **Engineered a scalable microservices platform** with efficient APIs for traffic management and **PubSub integration**.
- **Developed WebSocket services for real-time data** exchange and an **Engine service** for dynamic data processing.
- Streamlined deployments using **Docker** and created a **Market Maker service** to simulate market conditions.

AgroMaster – Smart Agricultural Assistant – React | Node.js | NASA APIs | Google Gemini | AI-Powered Insights *project live*

- Developed a **real-time agricultural platform** integrating NASA Earthdata and Landsat APIs to provide farmers with actionable insights on water levels, crop health, and weather patterns.
- Built a **React frontend** and a **Node.js backend** with Express for data integration and processing. Deployed the application on **Vercel (frontend)** and **Render (backend)**.
- Implemented an **AI-driven Mega chatbot** for real-time farming assistance, crop prediction, and pest management in multiple languages.
- Designed a **plant health monitoring system** using AI to detect diseases from uploaded images and recommend preventive measures.
- Leveraged **Google Gemini API** and **OpenWeatherMap API** to enhance crop prediction accuracy based on weather and soil conditions.
- Collaborated with a team to deliver a **fully functional prototype** within 36 hours as part of the NASA Space Apps Challenge .

Education

Amrita Vishwa Vidyapeetham *B.Tech in Computer Science and Engineering* *Sept 2022 – Aug 2026*

- CGPA: 8.0/10
- **Coursework:** Computer Networks, Operating Systems, Data Structures and Algorithms, DBMS, OOPs, Machine Learning, Deep Learning

Achievements and Certifications

First Prize winner at NASA Space App Challenge Hackathon, Kollam, Kerala *project live*

Global Nomination from Kollam, India for NASA Space App Challenge - 2024

Global Nomination from Kathmandu, Nepal for NASA Space App Challenge - 2022

Participation Certificate - **International Conference on TSUNAMI RISK REDUCTION AND RESILIENCE (ICTR3)**

Full Stack + DevOps + System Design Cohort *Certificate*

Extracurricular Activities

Member of ***AMFOSS***, Amritapuri - INDIA'S LEADING FOSS & COMPUTER SCIENCE CLUB

Team Lead – Short Film Production *Channel*

- **Led a team of 30+ members** in planning, scripting, and producing a short films, ensuring smooth collaboration and project completion within deadlines.
- Coordinated with various departments including **direction**, **cinematography**, **editing**, and acting to bring the creative vision to life.
- Managed **time**, **resources**, and **communication** effectively to deliver a high-quality final product.
- Developed **leadership, project management, and team-building** skills through hands-on experience in.