RITUPARNA WARWATKAR

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EDUCATION

Indian Institute of Information Technology, Guwahati Dec 2020 – May 2024
Bachelor of Technology, Computer Science and Engineering *CGPA: 8.21*

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Dart, Java, Python, C
Database: MongoDB, Redis, SQL, Firebase, Pinecone
Technologies: NodeJS, Angular, Docker, React, Flutter
Other: AWS, Git, Shell Scripting

EXPERIENCE

Okinawa Institute of Science & Technology - Veritus.ai Jun 2024 – Present
OIST Innovation Accelerator Fellow - Software Development Engineer *Okinawa, Japan*
Node.js | MongoDB | Redis | React | AWS | Next.js | OpenAI | Gemini | Pinecone

- Implemented a comprehensive authentication system, including user signup, waitlist management, login, **OAuth social login**, email verification, and password management.
- Developed and integrated a robust **payment processing** and credit control system using **Stripe**.
- Developed a fully-featured full-stack **admin panel** for managing users and platform content, including features such as waitlist management, user transactions, and user feedback.
- Developed a **feature flag** system to enable or disable features without modifying source code or redeploying, allowing for **controlled feature rollouts** and **targeted user testing**.
- Implemented context caching to optimize AI workflows, **reducing LLM costs** by up to **65%** by reusing cached tokens instead of passing the same input repeatedly.

FIITJEE, Edfora Dec 2023 – April 2024
Software Developer Intern *Delhi, India*
Node.js | MongoDB | Redis | Angular | React | Swagger

- Developed a full-stack **dynamic form builder** and response system, enabling institute admins to create and assign custom forms to students, enhancing platform engagement and **eliminating reliance** on third-party services like Google Forms.
- Implemented **device registration and management** for user authentication on the Glorifire Jr. platform, utilizing **fingerprint.js** for the web and **device IDs** for mobile app.   tm
- Developed a full-stack "Question Contribution" module, enabling students to contribute **various question types**, including multiple choice, numerical, and matrix match, to the question bank.
- Enhanced student engagement by up to **50%** through push notifications, emails, and in-app notifications.

PROJECTS

HealthCare Portal | ⌂ | ▶

- Best HealthCare Solution, HackVerse NIT Surathkal
- One-Stop Platform for providing better healthcare in a hassle free manner and eliminating stigmas associated with conventional treatment using Machine Learning
- Tech Stack:- NodeJS, FastAPI, MongoDB, React, Scikit-learn.

multer-firebase-sharp | *npm* ⬀

- Integrated a complete sharp based image processing pipeline in an existing multer based firebase storage engine
- Processes images in-memory and then uploads to Firebase Storage eliminating the need of file system write operations

Eligram-X | ⌂

- A social media application focused on implementing user authentication, authorization and integration with various platforms.
- Implemented 2FA using TOTP along with session management for users to check which devices their account is logged in.
- Admin Panel for managing platform data which insludes users, posts, hate & spam reports etc
- OAuth integration with Discord for users and Telegram for site admins
- Tech Stack: NodeJS, Angular, MongoDB, Redis, Firebase

Multi-tasking Kernel from scratch in C (Ongoing) | ⌂

- A 32-bit multi-tasking kernel with FAT16 filesystem, leveraging Intel's memory protection mechanisms.
- Memory virtualization, virtual filesystem layer, FAT16 filesystem driver, task/process functionality, keyboard drivers, and memory management.
- An ELF file loader along with a fully functioning 32-bit multi-tasking kernel with a working shell.

CERTIFICATIONS

Google Cloud: Cloud Digital Leader ⬀