HRITHIK SHAM D H

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TECHNICAL SKILLS

- **Languages:** Python (FastAPI, async), JavaScript/TypeScript (ES6+), C/C++, Java
- **Frontend:** React.js, React Native (Expo), Tailwind CSS
- **Backend:** Node.js (Express), FastAPI, REST APIs, JWT, RBAC
- **Databases:** MongoDB, PostgreSQL, SQL, Cosmos DB
- **Performance:** Redis, Nginx, caching, indexing, concurrency optimization , pagination
- **Cloud & Tools:** Docker, Render, Vercel, Git/GitHub, Postman , Cloudflare

WORK EXPERIENCE

Full stack Developer Intern ⬈ - Anjo Aqua World   Apr 2025 - June 2025

- Developed a full-stack payroll system managing 50+ employee records with automated salary
- Implemented **JWT-secured REST APIs** tested via **Postman**, improving data accuracy by 30% and reducing manual effort.
- Built real-time salary dashboards with Chart.js and Tailwind CSS, boosting efficiency by 40%.

Backend Developer Intern. ⬈   - InnoByte Services.   **Aug 2025 – Oct 2025**

- Developed a scalable REST API (15+ endpoints) for task management and authentication
- Optimized **performance by 40% through indexing and pagination** by handling 500+ concurrent requests via **Nginx load balancing.**
- Implemented secure JWT auth, role-based control, and file uploads, with **Swagger-documented APIs** for seamless handover.

EDUCATION

Bachelors of Technology Computer Science spl in AI & Robotics   **September 2022 - Present**

Vellore Institute of Technology , Chennai Campus , TN   CGPA: 7.63

PROJECTS

Autonomous LLM Agent *React , FASTAPI , MongoDB*   **July 2025 - PRESENT**

- Built an LLM-powered conversational system to **parse OpenAPI/Swagger docs**, classify developer intent, and generate grounded, real-time API responses using **RAG architecture.**
- Designed a multi-layer reasoning loop with **LangChain agents**, hybrid semantic + keyword retrieval, and dialogue-state tracking, **achieving ~95% intent accuracy** and **sub-2s response latency for API queries.**
- Optimized retrieval, caching, and **schema indexing to reduce integration time by ~38–40%,** supporting 50+ concurrent users with stable performance under load.

URL Shortener & Analytics Platform ⬈ Node.js, PostgreSQL, Prisma   **Nov 2025 - Jan 2026**

- Built and load-tested a scalable URL shortener backend **optimized for low-latency** redirects and **100+ concurrent users.**
- Reduced database load by ~70% using **Redis cache-first architecture** with async analytics.
- Ensured fault tolerance and abuse protection through **rate limiting and performance isolation.**

Yournote App[↗]   *React Native , FASTAPI , MongoDB*   **Jan 2025 - June 2025**

- Designed a scalable mobile app with **JWT-based auth**entication, **Redis state management**, **end-to-end encrypted** data storage and 10,000+ notes with online synchronization.
- Architected FastAPI-based microservices with **optimized MongoDB schemas,** enabling high-performance CRUD operations and seamless **horizontal scalability.**
- Reduced backend **API fetches by ~35%** through efficient data modeling, caching strategies, and optimized request flows.

ADDITIONAL INFORMATION

- **Languages:** Tamil , English
- **Certifications:** Microsoft Azure Data Fundamentals (DP-900) & MongoDB Certified Developer
- **Activities:** *International Committee Member* – Organized 4+ international events and built networks with global clients to strengthen cross-cultural collaboration.