

Vijay Venkat J

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Education

Indian Institute of Information Technology Kottayam (IIITK)

B.Tech Computer Science and Engineering

May 2027

CGPA: 8.77

Technical Skills

- **Programming Languages:** JavaScript, TypeScript, Golang, Python, C++
- **Database:** MongoDB, PostgreSQL, PineconeDB, MySQL
- **Developer Tools and Frameworks:** Git, Github, Postman, Langchain, NextJS
- **Cloud and DevOps:** AWS, GCP, Azure, Jenkins, Docker, Kubernetes
- **Penetration Testing Tools:** Kali, BurpSuite, OWASP Zap, Nmap, Gobuster, Sublist3r, Nuclei, Ffuf

Experience

Granville Tech

Backend Developer Intern

April 2025 — Present

- Built the back-end for a scalable **AI-powered EdTech platform**, integrating real-time class streaming with personalized AI-driven learning experiences.
- Built a cost-efficient **live streaming pipeline** using **SRT, HLS, FFMPEG** and **AWS ECS**, cutting streaming infrastructure costs by **30%** while ensuring smooth and adaptive playback.
- Optimized back-end APIs and database queries, improving system performance and reducing average response times by **40%**.

Cyber Security Club - IIIT Kottayam

Core Member

Jan 2024 - Present

- Created **Web exploitation** challenges for **Apoorv CTF 2025**, conducted by CSYClub IIITK. Helped organize the event, which saw **2,349+ users** and **1,247 teams**, managing the event logistics and providing participant support.
- Contributed to the **CSYClub CTF Guidebook**, authoring a section on **file upload** vulnerabilities, covering exploitation techniques and real-world attack scenarios.

Projects

- **ClaimBeaver** ([ClaimBeaver](#)) — *LangChain, Next.js, Redis, RabbitMQ, Prisma ORM, PostgreSQL* **March 2025**
 - Developed an AI-powered **insurance claims resolver** leveraging **Next.js, LLM microservices, and RAG** for efficient claim processing.
 - Developed an agentic claims workflow using a locally hosted **LLaMA 3.2 8B model**, which allows on-prem data processing.
 - Optimized back-end performance by integrating **Redis caching**, reducing database retrieval time by **90%**. Implemented **Messaging Queues** for efficient **asynchronous processing**, improving the responsiveness and scalability of the system.
- **Cypher-Cli** ([Cypher-Cli](#)) — *Golang, Cobra, AES-CBC, PBKDF2, SHA-256* **January 2025**
 - Built a secure **open source password manager** with **AES-256 encryption, SHA-256 hashing** and **Zero-Knowledge Architecture** to ensure privacy. Supports cross-platform usage, **browser integration**, and a secure password generator for enhanced security.

- **TimeTable** ([TimeTable](#)) — *Next.js, Langchain, MongoDB, Tailwind CSS*

September 2024

- Developed a **intelligent timetable management system** that automates class scheduling while allowing teachers to **dynamically adjust class timings**. Features **conflict resolution, real-time updates**, and an intuitive UI, ensuring seamless coordination for institutions

Achievements

- **BITS Goa CTF 2025 – Global Top 10** Ranked 9th globally among 800+ teams in BITS Goa's flagship 48-hour CTF.
- **Winners, DB Cooper 2.0 – The Digital Detective Hunt** Secured first place in an OSINT-focused CTF organized by BetaLabs, IITK's technical club.
- **Top 3% on TryHackMe** Hands-on expertise in Cybersecurity, CTF challenges, and penetration testing