

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++
- **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

- We built the server infrastructure for a scalable **AI-enhanced EdTech solution**, incorporating live class broadcasting with customized AI-guided educational modules.
- Developed a budget-friendly **live video delivery system** utilizing **SRT, HLS, FFMPEG**, and **AWS ECS**, achieving a **70+%** reduction in streaming expenses while maintaining seamless adaptive video quality.
- Addressed N+1 query problems and improved database performance through query restructuring and index implementation, resulting in a **40%** decrease in average API latency.

Cyber Security Club - IIIT Kottayam

Core Member

Jan 2024 - Present

- Designed **Web exploitation** challenges for **Apoorv CTF 2025**, an event hosted by CSYClub IIITK. Contributed to the organization of the event, which attracted more than **2,349 participants** and **1,247 teams**, by overseeing logistics and offering assistance to attendees.

Projects

- **ClaimBeaver** ([ClaimBeaver](#)) — *LangChain, Next.js, Redis, Prisma ORM, PostgreSQL* **March 2025**
 - Built an AI-powered insurance claims resolver using **Next.js, LLM microservices, and RAG architecture**; reduced claim processing time by **40%** and improved customer satisfaction scores by 25
 - Designed an agent-based claim processing pipeline employing a locally deployed **LLaMA 3.2 8B model**, allowing on-premises data management.
 - Boosted server-side efficiency through **Redis cache integration**, achieving a **90%** decrease in database access times. Introduced **Message Queues** for effective **asynchronous operations**, enhancing system responsiveness and scalability.
- **Cypher-Cli** ([Cypher-Cli](#)) — *Golang, Cobra, AES-CBC, PBKF2, SHA-256* **January 2025**
 - Created a robust **open source password management tool** featuring **AES-256 encryption, SHA-256 hashing**, and a **Zero-Knowledge framework** to guarantee user privacy. Offers multi-platform compatibility, **browser integration**, and a strong password generation utility for increased security.

Achievements

- **BITS Goa CTF 2025 – Achieved Global Top 10** Placing ninth worldwide out of 800+ teams in BITS Goa's premier 48-hour Capture the Flag competition.
- **First Place, DB Cooper 2.0 – The Digital Detective Hunt** Won an OSINT-focused CTF hosted by BetaLabs, IIITK's technical club.
- **Ranked in the Top 3% on TryHackMe** Demonstrates practical proficiency in cyber security, CTF challenges and ethical hacking techniques.