

# PRANAV KISHAN T Y

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Computer Science undergraduate focused on backend engineering and cloud-native DevOps. Skilled in building high-performance systems, optimizing database latency, and deploying automated CI/CD pipelines. Passionate about scalable software solutions and modern infrastructure.

## EDUCATION

### Bachelor of Technology - Computer Science and Engineering

2023-2027

Amrita Vishwa Vidyapeetham - Coimbatore, India

CGPA - 8.69

- **Relevant Coursework:** Data Structures and Algorithms, OOP, Operating Systems, Computer Networks, Database Systems, Software Engineering, Machine Learning, Computational Intelligence

## TECHNICAL SKILLS

- **Languages:** C/C++, Python, Java, JavaScript, TypeScript, SQL
- **Backend and Systems:** FastAPI, Node.js, Express.js, REST APIs, Microservices, System Architecture
- **Frontend:** React.js, HTML, CSS, Tailwind
- **Security:** AES/RSA Encryption, Digital Signatures (SHA-256), RBAC, Zero-Trust Principles, OAuth
- **Databases and Cloud:** SQLite, MySQL, MongoDB, Google Cloud Platform, Supabase
- **Tools and Platforms:** Git, Docker, Linux, Bash, GitHub Actions, Vite

## PROJECTS

- **InfoStuffs** | [Repo](#) | [Live](#) | [Blog](#) | React.js, MongoDB, Express.js, Node.js, Vercel, Docker  
Zero-Trust personal information manager ensuring end-to-end privacy via client-side cryptography.
  - Architected a **Zero-Trust security model** using **client-side AES-256** and **PBKDF2**, ensuring the database and backend infrastructure remain blind to plaintext user data.
  - Engineered a **Hybrid Serverless architecture**, unifying **Docker-based** local development with stateless **Vercel Functions** for cost-optimized scaling.
  - Orchestrated a seamless **hybrid deployment strategy**, implementing custom **file-based routing** to bridge monolithic development with serverless production environments.
- **Netwatchpy** | [Repo](#) | [PyPI](#) | Python, SQLite, GitHub Actions  
A cross-platform, installable TUI for real-time network usage monitoring.
  - Refactored SQLite schema from text strings to **Unix Epoch integers**, reducing range query latency by **~40%** via optimized **B-Tree indexing**.
  - Engineered a **fault-tolerant SQLite WAL architecture** to process real-time telemetry and render 24-hour bandwidth metrics **without database locks**.
  - Established a **GitHub Actions CI/CD pipeline** to automate **cross-platform binary builds** and PyPI releases.
- **VeriTender** | [Repo](#) | FastAPI, SQLite, Python-Cryptography  
Secure E-Government Tendering platform developed for Cyber Security Foundations coursework.
  - Engineered a **Hybrid Encryption architecture (AES-256 + RSA-2048)** with **SHA-256 Digital Signatures** to guarantee the confidentiality, integrity, and non-repudiation of sealed bids.
  - Implemented **NIST SP 800-63-2 compliant Multi-Factor Authentication (MFA)** and **Role-Based Access Control (RBAC)** to secure endpoints and maintain immutable audit trails for forensic accountability.

## EXPERIENCE

- **Intel IoT Club - Full-Stack Developer** November 2025 - Present
  - Resolved critical **server-client rendering mismatches** (hydration errors) to ensure deterministic application behavior and visual stability on the official club platform.
  - Implemented **modular components** for the EasyEPFO payment interface and **refactored core website layouts** to improve visual consistency.
- **ACM Student Chapter - Member** May 2025 - Present
  - Engineered a **strictly typed, reusable UI component** library using React and TypeScript, resolving **cross-device responsiveness issues** and standardizing the design system across the Chapter and SOC portal.

## ACHIEVEMENTS

- Our team **secured 39th place** in the **Puch.AI Hackathon** with over 25,000 participants.
- **Selected** for the **Visteon Scholar Program**, a competitive mentorship initiative for engineering undergraduates.

## CERTIFICATIONS AND COURSES

- IETE Docker Workshop | [CERTIFICATE](#)
- Google Cloud - Introduction to GenAI | [CERTIFICATE](#)
- Google Cloud - Prompt Design in Vertex AI | [CERTIFICATE](#)
- Introduction to Distributed SQL and CockroachDB, Cockroach University | [CERTIFICATE](#)