

Keerthi Vasan P

Bangalore • +91-9844457264 • keerthivasan.dev27@gmail.com • Portfolio: iamkeerthivasan.in • LinkedIn: linkedin.iamkeerthivasan.in • GitHub: github.iamkeerthivasan.in

SUMMARY

Computer Science undergrad (Sem 6, CGPA 8.75) with hands-on experience building, deploying, and maintaining production systems used by real users. Strong foundation in backend engineering, database design, and Linux server administration. Quick learner who ships working software, takes ownership end-to-end, and thrives in problem-solving environments. Seeking SDE and full-stack internships at product-first companies.

EXPERIENCE

Software Developer (Contract) & System Administrator

Oct 2025 – Present

Faculty Leave Management System — Cambridge Institute of Technology, Bangalore | Paid Contract

- Designed, developed, and deployed `lms.cambridge.edu.in` — a production-grade faculty leave management system using **Node.js, Express, MySQL & React**, serving **300+ institutional users, 200+ WAU** at **99%+ uptime** on Hostinger VPS (Nginx + PM2).
- Used **MySQL transactions (BEGIN/COMMIT/ROLLBACK)** to design an **ACID-compliant approval workflow** (Faculty → Substitute → HOD → Principal) with RBAC and substitute locking — eliminating race conditions and ensuring data integrity under concurrent requests.
- Built a resilient **async mail queue** using **Nodemailer + MySQL** with a background worker, UUID claim tokens, and exponential backoff retry — solving email delivery failures without blocking the main request lifecycle.
- Applied **database indexing, query optimization, and connection pooling (mysql2)** to achieve **~35% reduction in API response latency** — validated under concurrent load testing with **Autocannon**.
- Automated infrastructure using **GitHub Actions CI/CD, cron + shell scripts** for daily DB & app backups, zero-downtime deploys, and tested disaster recovery — reducing manual ops to near zero.

PROJECTS

Fake Image Detection System — EfficientNet, ResNet, Xception, Grad-CAM

Ongoing

- Built a CNN pipeline benchmarking **EfficientNet, ResNet & Xception** for detecting AI-generated and manipulated images; achieved **80%+ accuracy, 90%+ recall, AUC 0.85**, uncertainty <5%. Integrated Grad-CAM for tampered region localization.
- Integrated **Grad-CAM explainability** to visually localize tampered regions; designing REST API deployment for real-time inference with robustness evaluation across unseen forgery types.

AI-Powered Telegram Chatbot — n8n, Google Gemini API, REST APIs

- Automated farmer-facing workflows (weather, crop advisories, govt. schemes) via **n8n + Google Gemini API** — reducing manual lookup to instant conversational responses with multi-API orchestration.
- Automated end-to-end pipelines for **weather updates, crop advisories, and government scheme lookups** — instant, conversational responses replacing manual information lookup.

UTCA 2026 Conference Website — Python Flask, HTML/CSS, Vercel

- Designed, built, and deployed `utca.in` — production site supporting **paper submissions, announcements, and participant registration** with zero downtime during the active submission period, as sole developer.

EDUCATION

Cambridge Institute of Technology, Bangalore

2023 – 2027

B.E. Computer Science Engineering | CGPA: **8.75** | Specialization: IoT, Cybersecurity & Blockchain

Coursework: DSA, Operating Systems, DBMS, Computer Networks

TECHNICAL SKILLS

Languages: JavaScript (Node.js), Python, Java, C

Backend: Node.js & Express — REST APIs, session auth, RBAC, middleware design, rate limiting

Frontend: React 19, Vite, TanStack Query, MUI — used in LMS faculty dashboard

Databases: MySQL 8 — transactions, indexing, query optimization, connection pooling | MongoDB

DevOps & Ops: Nginx, PM2, GitHub Actions CI/CD, cron + shell scripting, Linux, Hostinger VPS, AWS (EC2, S3, RDS)

Testing: Jest, Supertest, Autocannon — unit, integration, security/RBAC, performance, E2E

Tools: Git, Nodemailer, Winston, PostHog, Twilio, n8n, Postman

CERTIFICATIONS & ACHIEVEMENTS

- NPTEL:** Programming, Data Structures & Algorithms using Python — proctored national exam.
- VTU MOOC:** OOP with UML, Java & Design Patterns — scored **91/100**.
- DSA:** Solved 100+ algorithmic problems across arrays, graphs, dynamic programming, and greedy algorithms on LeetCode, GeeksforGeeks, and HackerRank.