JENSON T RAJAN

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LinkedIn | GitHub | Portfolio

PROFESSIONAL SUMMARY

Final-year B.Tech CSE student (CGPA 9.74) who builds reliable backend and AI systems: idempotent event-driven services using Kafka and Redis, ML fraud detection, and test-backed CI/CD. Experience in collaborative projects and independent research at CUSAT. Seeking a New Grad Software Engineer role.

EDUCATION

B.Tech Computer Science & Engineering, Chinmaya Vishwa Vidyapeeth Deemed to be University — *2023 – Expected 2027*
Ernakulam, Kerala | CGPA: 9.74 (up to S6)

Class XII (STATE), Mar Coorilose Memorial HSS — *2023*
Ernakulam, Kerala | CGPA: 9.00

Class X (CBSE), Hagia Sophia Public School — *2021*
Ernakulam, Kerala | CGPA: 9.5

PROFESSIONAL EXPERIENCE

Popkon Creatives — *Ernakulam, Kerala | July 2026 – September 2026*
Website Design & Development Intern
- Design, build, and maintain client websites end-to-end, from front-end development to production content updates.
- Optimize page speed, responsiveness, and SEO across live websites; diagnose and fix post-deployment issues.

Cochin University of Science and Technology — *Ernakulam, Kerala | May 2025 – June 2025*
Student Researcher
- **Project:** Transliteration of Old Malayalam Manuscripts using Deep Learning.
- Independently researched an unfamiliar domain (historical OCR), created a custom dataset and character mapping, and trained CNN and Transformer-based models under faculty mentorship.

PROJECTS

Sentinel (Real-Time Fraud Detection System) — *June 2026*
Personal Project
GitHub Repository
- Re-keyed Kafka partitioning by account ID and added Redis idempotency using atomic SET NX EX with dead-letter routing for reliable event processing.
- Replaced IsolationForest with XGBoost, improving fraud recall from **28% to 98%** and precision from **24% to 82%** at **8–12ms** latency; added Strategy rules, JUnit/Mockito tests, GitHub Actions, Prometheus, and Grafana.
- **Tech Stack:** Java, Spring Boot, FastAPI, Kafka, XGBoost, Redis, PostgreSQL, Docker

DocuVault Engine (Event-Driven RAG Platform) — *June 2026*
Personal Project
GitHub Repository
- Decoupled Spring Boot and FastAPI with Kafka for asynchronous PDF vectorization and ChromaDB retrieval, keeping upload blocking time under 50ms.
- Added Dead Letter Queue handling, SSE LLM streaming, and JWT-based multi-tenant isolation with Redis session blacklisting.
- **Tech Stack:** Java, Spring Boot, FastAPI, Kafka, Redis, PostgreSQL, ChromaDB, Docker

Eye Guardian (Offline Android Eye-Care Companion) — *October 2026*
Personal Project
GitHub Repository
- Built an offline Android application with on-device viewing-distance monitoring, app-usage summaries, break reminders, local reports, and focus games.
- Implemented background monitoring, notification actions, local history, PDF/JPEG exports, automated tests, and installable builds.
- **Tech Stack:** Kotlin, Android, Jetpack Compose, CameraX, ML Kit, Gradle, GitHub Actions

Custom TrOCR Pipeline for Malayalam Manuscripts — *March 2026*
Mini Project, Chinmaya Vishwa Vidyapeeth
GitHub Repository
- Built a synthetic degradation engine and 10,000+ image dataset; integrated CRAFT and projection profiling before fine-tuning TrOCR with FP16.
- Reduced manuscript transcription time from up to 60 minutes to 8–15 seconds per page.
- **Tech Stack:** PyTorch, Hugging Face, OpenCV, TrOCR, CRAFT

Bitwise (Collaborative Code Editor) — *March 2026*
Team Project
GitHub Repository
- Contributed to a cross-platform collaborative code editor built with Electron, React, TypeScript, Monaco Editor, Yjs CRDTs, and WebSockets.
- Supported collaborative chat/canvas features and backend session persistence using Node.js, Express, and SQLite.
- **Tech Stack:** Electron, React, TypeScript, Monaco Editor, Yjs, Node.js, Express, WebSockets, SQLite

CERTIFICATIONS

- **Anthropic: Certificate of Completion, AI Fluency Framework & Foundations** — *2026*
- **Coursera: Google AI Essentials** — *2024*
- **IBM: Introduction to Cloud Computing** — *2024*

LEADERSHIP & VOLUNTEERING

- **Tech Lead,** Spyra University Coding Club; **Treasurer,** IEEE University Student Branch.
- **Volunteer,** NSS; **Finalist,** AquaVision AUV, HackQuest, and Tech4Good.

SKILLS

Languages: Java, Kotlin, JavaScript, TypeScript, Python, SQL **Tools:** Git/GitHub, Arduino, Raspberry Pi
Backend: Spring Boot, FastAPI, Node.js, REST APIs, Microservices, Kafka, Redis, PostgreSQL, MongoDB, Docker, AWS, Prometheus, Grafana
Frontend & Mobile: React.js, Next.js, HTML, CSS, Three.js, Android, Jetpack Compose, CameraX, ML Kit
Testing & CI/CD: JUnit, Mockito, GitHub Actions **AI/ML:** Computer Vision, RAG, ChromaDB, Transformers, TrOCR, LLMs, Prompt Engineering