

576,000 Simulated LLM Completions	1,000+ Installs VS Code AI Marketplace	Top 10 / 5,600+ Cognizant Technoverse '26	Top 6% (400+ DSA) GSSoC '26 & LeetCode/GFG
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EXPERIENCE

Production RAG & Agentic Workflows

- Full-Stack Developer Intern | [Uplyx Solution](#)May – Jul 2025
- Built **LangChain + AWS Bedrock RAG** workflows for document ingestion, embeddings, vector retrieval, and grounded generation exposed through production **Node.js REST APIs**, alongside a custom **ReAct agent loop** with structured tool calling for multi-step planning and execution.
 - Evaluated **50+ benchmark queries** using **RAGAS** faithfulness, context precision, and context recall to systematically isolate and resolve retrieval and prompting failure modes.

RESEARCH & SYSTEMS EVALUATION

First Author – Lovely Professional University

- LanguageFair: Multilingual Scheduling Replay & Inference Reliability Case Study | Python 3.12, llama.cpp, Qwen3-0.6B2026
- Architected a deterministic, zero-dependency **Python 3.12 non-preemptive single-worker simulator** and independent event-reconstruction verifier replaying **300 SHA-256-bound English, Hindi, and Tamil** request profiles (Tamil averaging **186.0 vs. 56.6 English tokens**; 3.3× disparity) across **240 replay cells and 576,000 completions**.
 - Evaluated **FCFS, Token-Fair, RR-Lang**, and a parameter-free **Language-Aware Aging (LAA)** heuristic across 20 matched arrival seeds, uncovering a high-load **fairness ranking reversal**: Token-Fair achieved lower worst-language median slowdown in **20/20 seeds (+7.26%)**, whereas LAA reduced P95 tail slowdown in **20/20 seeds (+20.70%)**; separately audited **939 local GPU inference calls** (GTX 1650), tracing deterministic Tamil HTTP 500 errors to malformed interior UTF-8 token byte sequences.

SELECTED PROJECTS

Full-Stack GenAI, Distributed Queues & Developer Tools

- ClosedLoop | [Self-Healing Support Knowledge Base](#) | Redis, BullMQ, Socket.IO, RAG | [GitHub](#)Aug 2026
- Designed a **7-queue Redis/BullMQ pipeline** covering ticket embedding, clustering, automated drafting, verification, publication, RAG deflection, and gap detection with real-time **Socket.IO** telemetry; enforced a **3-LLM temperature-0 review gate** (20% holdout, up to 2 revision rounds) and built a cited RAG widget with **PII filtering** verified by **46 passing integration tests** and a **784-record audit** (0 SSN/card leaks).
- Ayu TokPress | [Multi-Provider AI VS Code Extension](#) | TypeScript, VS Code API | [GitHub](#) | [Marketplace](#)Jun 2026
- Published a **VS Code AI chat extension with 1,000+ marketplace downloads** featuring streaming responses, prompt compression, token tracking, and chat history; unified **5 providers (Anthropic, OpenAI, Gemini, GitHub Copilot, Ollama)** behind one interface supporting local inference and **VS Code Secrets API** key storage.
- GreenLedger-AI | [BRSR Sustainability Intelligence](#) | Python, AWS Titan v2, FAISS | [GitHub](#)May 2026
- Built regulatory document retrieval using **AWS Titan Embeddings v2 + FAISS** (500-character chunks, 50-character overlap, top-5 retrieval) evaluated across **8 BRSR categories**, decoupling LLM entity extraction from deterministic **Python rule-based calculations** for GHG, water, and POSH metrics to eliminate arithmetic hallucinations.

TECHNICAL SKILLS

Languages & Backend	JavaScript, TypeScript, Python 3.12, C++ Node.js, Express.js, FastAPI, REST APIs, MongoDB, Redis, BullMQ, Socket.IO
GenAI, RAG & LLM Serving	RAG, RAGAS, LangChain, ReAct Agents, Tool Calling, FAISS, Embeddings, AWS Bedrock, Titan Embeddings v2, Ollama, llama.cpp, Deterministic Simulation & Queue Scheduling
Frontend & DevTools	React, Tailwind CSS, Vite, AWS, Git, VS Code Extension API, VS Code Secrets API

ACHIEVEMENTS & EDUCATION

- Cognizant Technoverse 2026 & Algorithmic Problem Solving**: Selected as a **Top 10 National Finalist among 5,600+ teams** across India; solved **400+ Data Structures & Algorithms (DSA)** problems on LeetCode and GeeksforGeeks.
- GirlScript Summer of Code (GSSoC) 2026**: Ranked **2,480 out of 47,935 contributors (Top 6%)**; served across three roles as Open-Source Contributor, Project Admin, and Campus Ambassador.
- Education**: **Lovely Professional University** | B.Tech in Computer Science & Engineering (*Expected Jul 2027*) • **National**