

Jeevan U Gowda

📍 Bengaluru, India ✉ jeevanu345@gmail.com ☎ +91 63627 24307 in jeevanu345 🌐 Portfolio

Education

Bachelor of Engineering in Information Science & Engineering

Aug 2022 – Jun 2026

B.M.S College of Engineering, VTU – Bengaluru

- Expected Graduation: July 2026 — Cumulative GPA: 8.4/10.0
- **Relevant Coursework:** Data Structures & Algorithms, OOPs, DBMS, Operating Systems, Networks, Software Engineering, Machine Learning
- **Extracurriculars:** Vocalist, Guitarist, Football

12th Grade (Karnataka State Board) – 90%

Apr 2021 – Jun 2022

10th Grade (CBSE Board) – 90%

2019 – 2020

Experience

Software Development Engineer Intern – Brillio, Bengaluru

Mar 2026 – Present

Research and Development Intern – Samsung R&D Institute India, Bengaluru

Mar 2025 – Nov 2025

- Completed a virtual internship under the Samsung PRISM Program, working on the GenAI / Agentic AI worklet: “Cross-Agent Contextual Information Storage and Retrieval.”

Projects

RaftKV: Raft-Replicated Key-Value Store 🔗

- Built a Raft-replicated key-value store in Rust with a Redis-compatible (RESP2/RESP3) wire protocol and gRPC peer-to-peer transport. Consensus core is a pure state machine emitting side-effects as typed `Action` values, enabling deterministic simulation testing.
- Ships with a segmented durable log, sled-backed KV state machine, linearizable reads via read-index protocol, a Wing-and-Gong linearizability checker, and a Helm chart for Kubernetes deployment.
- **Tech Stack:** Rust, gRPC (tonic), RESP2/RESP3, sled, Docker, Kubernetes (Helm), Grafana

Code-Repair Agent with Execution-Grounded RL on SWE-Bench 🔗

- Trained an LLM agent to autonomously resolve real GitHub issues from SWE-bench Lite/Verified using GRPO. Agent follows a ReAct loop with tools (bash, file read/write/edit, grep, repo map, test run) inside an ephemeral, resource-capped, network-disabled Docker sandbox.
- Reward is binary and execution-grounded: FAIL_TO_PASS tests must pass and PASS_TO_PASS tests must not regress. Rollouts are fully reproducible via recorded seed, image digest, model SHA, and repo commit.
- **Tech Stack:** Python, TRL (GRPO), vLLM, Docker, Ray, PostgreSQL, Redis, Terraform, Prometheus, W&B

NCERT RAG Bot: AI-Powered NCERT Tutor 🔗

- Built an intelligent AI tutor using a RAG pipeline for conversational Q&A from NCERT Class 10 PDFs with local LLM integration, smart text chunking, vector search, and memory-based context retention.
- **Tech Stack:** Python, Streamlit, Ollama (phi3-fast), Chroma Vector DB, LangChain, PyPDF, FAISS

Instant Canteen: Smart Campus Food Ordering & Payment System 🔗

- Built a full-stack web app streamlining campus canteen operations — enabling students to pre-order meals and make instant UPI-based QR payments, while providing vendors a real-time dashboard for order and menu management.
- **Tech Stack:** React, TypeScript, Tailwind CSS, Vite, Supabase, Netlify

TapCart: NFC-Based Smart Retail System 🔗

- Designed an IoT-integrated retail platform enabling “tap-to-shop” purchases and real-time inventory sync across devices.
- **Tech Stack:** NFC, IoT, React Native, Node.js, Express.js, Cloud APIs

Research Papers

TapCart: NFC-Based Payment Interface

Apr 2025

- Proposed a smartphone-native NFC payment architecture enabling customers to scan product tags and complete merchant transactions directly from their mobile device, eliminating the need for dedicated POS terminals or additional hardware.

Technical Skills

Languages: C++, Python, C, Java, JavaScript, Rust, HTML/CSS

Frameworks & Tools: React.js, Node.js, Express.js, LangChain, Tailwind CSS, MySQL, MongoDB, Jupyter Notebook, Framer Motion

AI/ML: RAG Pipelines, Knowledge Graphs, Vector Databases (Chroma, FAISS), LLM Integration, GRPO/RL, Scikit-learn,

Pandas, NumPy, Matplotlib, Seaborn

Cloud/DevOps: AWS (EC2, S3, IAM), Docker, Kubernetes, Terraform, Linux, Networking basics (DNS, HTTP, TCP/IP)

About Me

- Responsible, organized, and hardworking individual passionate about technology, innovation, and problem-solving.
- **Soft Skills:** Communication, Critical Thinking, Analytical Problem Solving — **Languages:** English (Fluent), Hindi (Fluent), Kannada (Native)