KUSHAL ANVEKAR

Aspiring software engineer passionate about AI/ML and innovative software development.

kushalonmsrit@mail.com | 7411736359 | Bengaluru, IN
https://kushalmanvekar.runs-on.dev/

EDUCATION

Ramaiah Polytechnic

Diploma in Computer Science & Engineering

- Diploma in Computer Science & Engineering (AI/ML Specialization)
- M.S. Ramaiah Polytechnic, Bengaluru | Jul 2024 – Jul 2027
- Current CGPA: 8.41/10 (through 4th sem)

PROJECT

Sentinel — Local-First Security Intelligence Engine

- Built a local-first code security tool for developers and AI coding agents, combining deterministic rules.
- AST(Abstract Syntax Tree) aware analysis across Rust, Python, TypeScript, and JavaScript.
- Implemented codebase indexing, cross-function input-flow tracing, ranked security context patch.
- Verification, and CLI/TUI/MCP workflows; default scans use embedded rules without requiring network access.
- Added optional Semgrep/Bandit scanning and AI-assisted explanations through local Ollama and NVIDIA NIM, AI output remains advisory.

Bedrock — Model-Agnostic Agent Runtime

- Developed a portable agent kernel for domain-specific AI systems, separating application-defined identity, knowledge, tools, and behavior from the execution runtime.
- Structured capabilities around context management, tool execution, memory, retrieval, policy and permissions, workflows/state, model routing, events/observability, and evaluation.
- Designed provider-flexible, inspectable, replaceable, and testable components without enforcing a default assistant persona or autonomy model.

OpenConnect — Remote Development Dashboard

- Built a phone-accessible dashboard for a Windows PC with browser-based shell access, desktop streaming, and touch-friendly keyboard shortcuts over Tailscale.
- Connected xterm.js and node-pty through Express/Socket.IO for live terminal I/O, and a native Go WebSocket and a bridge to forward keyboard input to Windows.

SKILLS

- Languages: Python, Java, SQL, beginner proficiency in Rust and Go.
- AI & Agent Systems: LLM integration, model-provider abstraction, agent runtimes, tool execution, context and memory design
- Backend & Web: FastAPI,Socket.IO, Next.js, REST APIs, PostgreSQL/Supabase.
- Security & Dev Tools: Static analysis, AST-aware pattern matching, security rule engines, patch, verification, MCP, CLI/TUI, Git/GitHub
- DevOps & Infrastructure Tools: Docker, GitHub Actions, Linux/WSL, Tailscale.