KARRA CHANAKYA

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PROFESSIONAL SUMMARY

Computer Science student (CGPA: 8.0/10) with strong foundations in **Operating Systems, Computer Networks, and Distributed Systems**, backed by **500+ LeetCode problems solved** in C++ and Python. Proficient in low-level systems fundamentals (multithreading, memory management, POSIX/Linux, socket programming) combined with modern **autonomous agentic architectures**. Passionate about applying AI and agentic closed-loop controls to **self-managing infrastructure, streaming telemetry (gNMI/IPFIX), and open network platforms (SONiC, Redfish/IPMI)**.

TECHNICAL SKILLS & SYSTEMS COMPETENCIES

Languages:	**C, C++ (OOP, STL, Memory Management)**, Python, Go (Basics), Java, JavaScript/TypeScript, SQL, Bash/Shell
Networking & Telemetry:	TCP/IP, UDP, Sockets, gRPC/Protobuf concepts, IPC, WebSockets; studying **gNMI, IPFIX, NetFlow, BGP, and streaming telemetry**
OS & Infrastructure:	Linux/Unix internals (virtual memory, process scheduling, concurrency), **Docker, Docker Compose**, Microservices, Git/GitHub
Platform & Security:	Out-of-band management & BMC concepts (**Redfish, IPMI, MCTP, PLDM, SPDM**); open NOS interest (**SONiC** architecture)
Autonomous AI & Tools:	**Agentic Systems (LangGraph, LangChain)**, Scikit-Learn, SHAP Explainability, FastAPI, PostgreSQL (PostGIS)

SYSTEMS & INFRASTRUCTURE PROJECTS

JobShield: Autonomous Screening Pipeline & Explainable Forensic Engine — Python, FastAPI, Scikit-Learn, SHAP, Docker

- Engineered a decoupled dual-engine verification pipeline that autonomously separates suspicious structural intent from legitimate AI-assisted drafting signals in streaming ingestion payloads.
- Integrated local **SHAP LinearExplainer** telemetry attribution into the automated loop, transforming raw high-dimensional feature vectors into real-time directional risk weights and graph evidence nodes.
- Architected resilient **FastAPI** services with strict schema validation, concurrency limits, and formula-injection defenses; containerized via **Docker** for repeatable environments across hosts.

TransitHub: Real-Time Geospatial & Telemetry Simulation Service — FastAPI, Python, PostgreSQL/PostGIS, Docker Compose

- Built a distributed simulation backend computing dynamic vehicle coordinates, transit ETAs, and geospatial telemetry across simulated vehicle fleets.
- Engineered 17 REST API endpoints with **PostGIS** spatial indexing, achieving sub-50ms query response times under high-concurrency stop discovery lookups.
- Containerized backend, database, and client services with **Docker Compose** featuring healthcheck restarts and persistent state volumes.

Foundly: Low-Latency Distributed Socket & Real-Time Event Messaging Service — Node.js, Express, Socket.IO, MongoDB Atlas

- Implemented persistent bidirectional WebSocket communication channels with heartbeat connection health monitoring and automatic reconnect handling.
- Managed distributed event state synchronization and indexed query routing for sub-second notification dispatches.

EXPERIENCE & APPLIED TRAINING

Infosys Springboard – AI & Distributed Systems Intern — Virtual

- Collaborated in an agile team of 5 to design system architecture diagrams, state machines, and milestone deliverables for **CareerLens AI** platform.

IBM SkillsBuild – Applied AI & Cloud Intern — Virtual

- Developed prototype AI automation pipelines on Linux-based environments; studied model evaluation metrics and cloud compute allocation.

ServiceNow × SmartBridge – Platform Infrastructure Intern — Virtual

- Configured platform data schemas, business rules, and scripted event-driven workflow automations for enterprise infrastructure management.

EDUCATION & CERTIFICATIONS

B.Tech in CSE:	**Vardhaman College of Engineering, Hyderabad** | 2024 – 2028 | **CGPA: 8.0 / 10** Coursework: Operating Systems, Computer Networks, Data Structures & Algorithms, Database Systems, System Design
Certifications:	**Salesforce Certified Agentforce Specialist** (Autonomous Agents) • **Building AI Agents with Snowflake** • **Introduction to Generative AI** (Google Cloud) • **Python Essentials 1 & 2** (Cisco) • **Introduction to Unix** (Infosys)
Honors & Metrics:	**500+ LeetCode problems solved** in C++ and Python • **3rd Place Winner**, DevOps Hackathon (Vardhaman College of Engineering)