

A. SURYA KAUSTHUB

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SUMMARY

Final-year B.Tech (CS, '26) with strong foundations in Python, C++, and SQL. Experienced in **GenAI pipelines**, **agentic AI workflows**, and **distributed systems**, delivering solutions that cut processing time by up to **97%** and improve accuracy (F1 87%). Skilled in **MLOps (MLflow, W&B)**, **cloud-native deployment (Docker, Kubernetes, AWS/Azure ML)**, and published in IEEE on AI-driven automation.

EDUCATION

- **Bachelor of Technology in Computer Science** CGPA: 8.3/10 (Top 10%)
Amrita Vishwa Vidyapeetham, Bengaluru 2022 – 2026

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Java, Go, SQL
- **Core CS & Software Development:** DSA, OOP, API Design, Workflow Automation (n8n, Airflow)
- **AI/ML & GenAI:** PyTorch, TensorFlow/Keras, Hugging Face Transformers, LangChain, LlamaIndex, Agentic AI (AutoGen, CrewAI), scikit-learn, XGBoost, Feature Engineering, Model Evaluation Interpretability (SHAP, BLEU, ROUGE)
- **Data Engineering & Visualization:** Pandas, NumPy, Spark, ETL Pipelines, Plotly, Matplotlib, Tableau/Power BI
- **MLOps & Deployment:** MLflow, Weights & Biases, Docker, Kubernetes, GitHub Actions, Azure ML, AWS
- **Monitoring & Systems:** Prometheus, Grafana, eBPF (basic), Linux Environments

EXPERIENCE

- **Technical Co-Founder** Nov 2023 – Present
Digg Deeperr – Micro-learning Platform (Remote)
 - Designed a **Next.js 14 + Firebase** micro-services backend with WebSocket-powered coding arena; autoscaled on GKE to **500+ concurrent users** at >99.9% uptime.
 - Implemented **RBAC, JWT auth, and AES-256 encrypted backups** to Cloud Storage, achieving daily RPO and <60 s RTO for user data.
 - Instrumentation via **Prometheus & Grafana**; latency SLO 150 ms met **98.7%** of the time after eBPF-driven hotspot profiling.
- **Distributed Systems Intern** May 2024 – Aug 2024
QuantEdge Technologies, Bengaluru
 - Automated **data integrity checks** for high-throughput messaging pipelines, cutting validation latency by **65%**.
 - Streamlined backend workflows using **Go + Python**, reducing manual interventions on recurring tasks by **40%**.
 - Partnered with backend, monitoring, and QA teams to enhance reliability, improving SLA compliance from **92% to 99%**.

PROJECTS

- **GenFlow: AI Workflow Automation System** — Python, n8n, LangChain May 2025
 - Automated multi-step workflows by integrating **LLMs with n8n** and external APIs, reducing manual processing time by **70%**.
 - Designed reusable **prompt frameworks** improving accuracy of generated reports by **20%** against QA benchmarks.
 - Deployed pipelines with **Docker + GitHub Actions CI/CD**, serving **500+ automated tasks/week** reliably.
 - Extended workflows with **Agentic AI orchestration (AutoGen)** enabling multi-agent collaboration for task routing.
- **RAG-Knowledge Assistant** — Python, Hugging Face, FAISS, Azure Mar 2025
 - Engineered a **Retrieval-Augmented Generation system** combining semantic + keyword search to cut hallucinations by **35%**.
 - Benchmarked on domain QA sets, achieving **85% retrieval precision** and <1.2s median response latency.
 - Containerized with **Docker** and deployed on **Azure ML**, handling **100+ daily enterprise queries**.
- **MLOps AutoDeploy Pipeline** — Python, MLflow, W&B, Kubernetes Jan 2025
 - Implemented an end-to-end **MLOps pipeline** with MLflow & W&B for experiment tracking and reproducible deployments.
 - Cut **deployment time from days to <2 hours** using GitHub Actions and automated container builds.
 - Monitored models with **Prometheus + Grafana**, reducing downtime incidents by **30%** in production runs.

CERTIFICATIONS & ACHIEVEMENTS

- **Google Cloud Skills Boost** — *Kubernetes in Google Cloud* (Skill Badge), 2025
- **AWS Educate** — *Containers & Microservices* (Digital Badge), 2025
- **CodeChef 4 (1901) & Codeforces Expert (1775)** — Top ~2-5%. [CodeChef] [Codeforces]

RESEARCH PUBLICATIONS

- **Efficient Use of Machine Learning Models for Language Translation (Telugu–Hindi)** — INCOFT 2025.
- **SecureBidPro: A Robust Online Auction System** — IEEE Conference, 2025.
- **Quantum-Secured Alerts in Smart Grids** — IEEE ICET 2025.
- **Smart Health Tracker with GPS** — CRM 2024.