

NARRA VENKATA RAGHU CHARAN

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GitHub | Portfolio

PROFESSIONAL SUMMARY

Data & AI Engineer with experience delivering scalable Machine Learning, Deep Learning, and AI solutions. Skilled in Retrieval-Augmented Generation, Computer Vision, and Optimization Tools, with Strong Proficiency in Python, PyTorch, and Cloud Platforms (AWS, GCP). Proven ability to take projects from concept to deployment.

EXPERIENCE

Data & AI Engineer

Sep 2024 – Present

Freshbus, Hyderabad

- Developed an automated customer service bot using a **RAG Agent** (OpenAI, ChromaDB, Vanna), reducing ticket resolution time by 40%.
- Built a scheduling software for dynamic fleet expansion in many stations, creating dashboards and improving decision-making speed by 30%.

SDE-1

Apr 2024 – Aug 2024

MoveInSync, Bangalore

- Built a **facial recognition attendance system** with OpenCV and InsightFace for real-time employee tracking with 95% + precision.
- Integrated cloud-based pipelines for secure, real-time attendance with in-trip level.

Software Intern

May 2024 – Jun 2024

IIT Madras (remote)

- Designed a CNN model achieving 96% accuracy on MNIST using IBM's AI Hardware Kit (aihwkit), eliminating traditional DL libraries.
- Benchmarked neuromorphic vs. traditional inference, achieving a 15% less computation.

EDUCATION

B.Tech in Computer Science & Engineering (Data Science)

2020 – 2024

Gayatri Vidya Parishad College of Engineering (A)

CGPA: 9.1/10

PROJECTS

RAG Agent Chatbot

GitHub

- Domain-specific Retrieval-Augmented Generation chatbot using Vanna, ChromaDB, and OpenAI.
- Reduced query retrieval latency by 20% via optimized embeddings and easy access to DB via NLP

Synthetic Image Generation Using GANs

GitHub

- PyTorch pipeline for dataset augmentation and GAN-based synthetic image creation.
- Improved model generalization and accuracy in low-data vision tasks using synthetic samples by 10%.

EV Bus Scheduling Optimization

GitHub

- Optimization system using OR-Tools for EV bus scheduling, maximizing occupancy or given weights while adhering to operational constraints.
- Generated HTML tables and JSON outputs for visualization and integration.

SKILLS

Languages & Programming

Python, C/C++, Java, JavaScript, R (Basics), SQL

Databases

PostgreSQL, MongoDB, Redis, SQLite

Frameworks, Tools & Platforms

FastAPI, Flask, HTML, CSS, PyTorch, TensorFlow, LangChain, OpenCV, FAISS, Scikit-learn, Streamlit, Postman, AWS, GCP, Docker, Git, OR-Tools, EDA, Weka, Android Studio

CERTIFICATIONS & OPEN SOURCE

Certifications:

- Google Cloud Career Practitioner
- AWS Cloud Foundations
- Python (HackerRank Gold Badge)
- Android Development with Kotlin – Google Developers

Open Source & Volunteering:

- **DeepFace:** Added Buffalo-L model
- **InsightFace:** Added Face Recognition script
- Mentor – GSSOC
- DevOps Lead – GDSC GVPCE
- Core Member – GDG Vizag