Gangili Sai Charan

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SUMMARY

Data Science graduate student with practical experience in designing and deploying machine learning models and data pipelines to drive measurable business outcomes. Proven success in anomaly detection, time-series forecasting, and deep learning applications. Proficient in Python, SQL, AWS, and big data ecosystems, with expertise in translating data into actionable business intelligence using Tableau and Power BI.

EDUCATION

Illinois Institute of Technology, Chicago, IL   Aug 2023 – May 2025
Master's in Data Science

    Coursework: Machine Learning, Time Series Analysis, Optimization Techniques, Big Data, Cloud Computing.

TECHNICAL SKILLS

    Programming: Python (TensorFlow, PyTorch, Scikit-learn), SQL, MongoDB, Redis, R, RESTful APIs, PySpark, Debugging
    Development Concepts: Object-Oriented Programming, Functional Programming, Singleton, Decorator
    Devops & Big Data: Linux, Shell, Git, CI/CD (Github), Scrum, HDFS, Hadoop, Spark, Kafka
    Cloud & Web Technologies: AWS (EC2, S3, Lambda, ACM),Docker, Kubernetes, HTML, CSS, JavaScript
    Generative AI & LLMs: GPT-4, Llama, AutoGen, Claude, Langchain, Langgraph
    AI/ML & Optimization: Time-Series Forecasting, MPC, Stochastic Optimization, XGBoost, CNN (ResNet)

EXPERIENCE

Reality AI   Feb 2025 – Present
Generative AI Engineer (volunteer internship)   San Francisco, CA

* Developed backend systems for educational AI tools by integrating Gemini 1.5 for structured language model outputs and orchestrating multi-agent workflows with LangGraph; enhanced system performance by 30% through Redis caching, automated deployments using GitHub Actions, Docker, Firebase Functions, and GCP Cloud Run, and conducted internal training sessions on generative AI workflows, resulting in a 30

Labelmaster Services Inc   Feb 2025 – Present
Data Analyst Apprentice (Capstone Project)   Chicago, IL

* Consolidated and analyzed multi-source marketing data, including CRM records, transaction histories, website traffic, SEO keywords, Google Ads metrics, and email campaign results. Used SQL and Python for data cleaning, aggregation, and trend identification, and created visual reports in Tableau to support marketing decisions. Identified key patterns in customer engagement and product performance, helping prioritize future marketing strategies. Reduced reporting turnaround time by 25%, improving speed and accuracy of campaign planning and evaluation.

UdbhavX - Stealth Startup   Nov 2025 – Present
Software Engineer   Hyderabad, INDIA

* Networked students, startups, investors, and mentors through a platform matching users by interests and expertise. Enabled students to find jobs, startups to connect with co-founders and investors, and mentors to guide talent. Built AI matching algorithms and domain-interest graphs to recommend connections. Supported MVP development and testing to ensure accurate matching and smooth user experience.

CognitivZen Technologies Pvt Ltd   Jul 2021 – Jul 2023
Associate Software Engineer   Hyderabad, INDIA

* Built and deployed a web application with OWASP ZAP integration for automated security testing, Role-Based Access Control, and CVSS-based vulnerability scoring. Co-designed an automation framework reduced manual testing by 40% and supported application validation on QA servers. Optimized backend APIs, cutting response times by 40% and improving scalability by 25%, helping deliver a key client project ahead of schedule.

PROJECTS

Cold Mail Generator (GitHub)   Feb 2025 – Feb 2025

* Created a cold email generation tool for service-based outreach using Groq and LangChain, extracts job listings from company career pages, parses into structured JSON using LLMs, and generates personalized cold emails with vector-matched portfolio links; streamlined B2B lead generation by automating outreach process for roles.

Multi PDF Files Chatbot (GitHub)

Jan 2025 – Jan 2025

- Created a PDF-based chatbot application enables users to interact with multiple documents using natural language by extracting and chunking text, generating semantic embeddings with a language model, and performing similarity matching to retrieve contextually relevant answers; enhanced user experience by ensuring responses were strictly grounded in PDF content.

Agentic Design Patterns with AutoGen (GitHub)

Jan 2025 – Jan 2025

- Built an AI agent framework using AutoGen to enable multi-agent collaboration on real-world tasks, including comedy generation, automated customer onboarding, blog post creation, chess gameplay, and financial analysis tools; implemented reflection-based designs for task planning and stock market insights, demonstrating skills in human-in-the-loop systems and practical AI integration.

Earth Surface Temperature Forecasting (GitHub)

Feb 2024 – May 2024

- Built a SARIMA-based time-series model with seasonal decomposition to forecast long-term temperature trends. Analyzed 270+ years of historical temperature data to identify seasonal, trend, and residual components. Validated model performance by comparing against ARIMA, achieving a 40% improvement in accuracy with an RMSE of 6.95. Provided forecasting outputs to support energy demand planning and environmental analysis efforts.

Healthcare Management System (GitHub)

Sep 2023 – Dec 2023

- Designed and implemented a database-backed system on AWS to manage patient records with high availability. Applied indexing techniques to optimize OLAP queries for faster data retrieval and reporting. Achieved 99.9% system uptime, ensuring reliable access to patient information and operational continuity. Reduced billing processing latency by 60%, improving overall system efficiency and user experience.

Hybrid CNN Architectures (GitHub)

Sep 2023 – Dec 2023

- Developed a convolutional neural network with skip connections to classify fine-grained butterfly species images. Applied Bayesian optimization to tune model hyperparameters and improve performance. Trained and evaluate model on a dataset of 12,000 labeled images across multiple species. Achieved an accuracy of 88.8%, demonstrating effective feature extraction and classification for complex image data.

ACTIVITIES

- "Implemented of Home Security System Deep Learning Process for Security Applications," *IJIRASE Journal(2020)* – Contributed to academic research in AI-based surveillance systems. [View Publication].