Sharanya Akkenapally

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SUMMARY

AI Engineer building production-ready agentic systems that coordinate autonomous tasks across marketing, SEO, and data workflows. Skilled in architecting multi-agent architectures, reducing operational overhead and enabling scalable automation for enterprise teams.

WORK EXPERIENCE

Draft&Goal — **Montreal, Quebec**
Data Scientist — *Feb 2025 - Present*

- Designed and deployed AI-driven automation workflows, cutting manual content operations by 82% and boosting delivery speed across marketing teams.
- Built multi-agent systems that coordinate autonomous tasks, optimizing SEO and data processing workflows with measurable productivity gains.
- Utilized Claude and Cursor to accelerate AI development cycles by 40%.
- Supported automation initiatives impacting content operations across 20+ enterprise clients.
- Collaborated with cross-functional teams to convert manual workflows into scalable, AI-powered systems, enhancing efficiency and reducing costs.
- Contributed to a no-code AI workflow builder, enabling clients to create and launch agentic systems without requiring technical expertise.

Cognizant — **Hyderabad, India**
Data Science Intern — *Mar 2022 - June 2022*

- Collaborated cross-functionally with data engineering teams and product managers, ensuring scalable data pipelines, utilizing agile development methodologies.
- Developed end-to-end fraud detection systems using LSTM-based RNNs, improving detection accuracy by 15%.
- Designed scalable ML pipelines for large-scale dataset, automated data workflows using Python and SQL, reducing deployment time by 20%.
- Implemented ETL pipelines to extract, transform, and load data from diverse sources into cloud-based infrastructures to enhance data collection and validation processes, optimize data flow, and accessibility.
- Managed infrastructure using containerization and orchestration tools such as Docker and Kubernetes, CI/CD pipelines, MLOps practices with model monitoring and retraining, and Git for version control.
- Created Power BI dashboards to communicate actionable insights for performance monitoring and using KPIs driving continuous improvements, enhancing data-driven decisions.

EDUCATION

Master of Applied Computer Science - *Concordia University, Canada* — *Sep 2022 - May 2024*
B. Tech in Information Technology - *Sreenidhi Institute of Science and Technology, India* — *Aug 2018 - Jul 2022*

TECHNICAL SKILLS

- **Programming languages & Databases:** Python, SQL, Java, Data Structures, C, NoSQL
- **AI/ML:** PyTorch, Keras, TensorFlow, AI Agents, Generative AI, Deep learning, Transformers, RAG, NLP, LLM Fine-Tuning, Langchain, Scikit-learn
- **Data Visualization & Analysis:** Tableau, Power BI, Microsoft Excel, Matplotlib, Seaborn, Pandas, NumPy
- **Cloud & DevOps:** Azure, AWS, GCP, CI/CD pipelines, Git, Flask, Kubernetes, Docker

PROJECTS

Retrieval Augmented Generation with LangChain and ChromaDB — **Nov 2024**

- Developed a RAG system using OpenAI embeddings and ChromaDB for Semantic Search.
- Preprocessed large documents into chunks, created vector embeddings, and retrieved context for user queries, achieving a query relevance score of 85%.
- Combined OpenAI's embedding models to create a robust pipeline for generating detailed, context-aware answers.

Taxi Demand Prediction — **Oct 2024**

- Conducted EDA and engineered time-based and interaction features to capture temporal patterns.
- Built and optimized an ensemble model (XGBoost, LightGBM, Random Forest) using Bayesian Optimization for hyperparameter tuning to improve hourly demand forecasting, resulting in 18% decrease in MAE.
- Integrated time-series weather forecasts, including lagged features and seasonal adjustments, to account for real-time environmental factors in demand fluctuations.

Transformer based TTS System for Speech Synthesis — **Feb - Apr 2024**

- Developed a Transformer-based Text-to-Speech (TTS) model with the LJSpeech dataset, improving speech quality and optimizing performance using the SpeechBrain framework.
- Accelerated training using CUDA, cuDNN, and parallel processing, improving computational efficiency by 25%, conducted model evaluation, and employed distributed training and GPU optimization to enhance model efficiency.
- Applied scaled positional encodings and dynamic batching, reducing Mel Error to 8.27e-02 and Stop Error by 10%.