HARI KRISHNAN RAMACHANDRAN
Data Science Engineer

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PROFESSIONAL EXPERIENCE

SKELLAM AI PVT LTD   **Bangalore, Karnataka, India**
Senior Data Science Engineer   **OCT 2024-Present**
- Fine-tuned the Stable Diffusion XL model on a branded dataset for a fashionwear brand, enabling high-quality, text-to-image generation tailored to specific products. Optimized prompts to create realistic visuals aligned with brand aesthetics and marketing needs

SKELLAM AI PVT LTD   **Bangalore, Karnataka, India**
Data Science Engineer   **OCT 2020-SEP 2023**
- **Contributed to the development of a customized enterprise AI solution deployed on AWS**, delivering over 6 billion recommendations annually by aggregating structured and unstructured data, including social media and customer reviews.
- **Designed and implemented robust data pipelines** to efficiently process and analyze vast amounts of unstructured data for the AI solution, enabling effective NLP model training and insights generation.
- Contributed to the development of the 'Usuals' feature within the Deepbrew Recommendation system, offering personalized recommendations by understanding the customer's purchase behavior. This feature serves 30 million Starbucks Customers and drove in **100,000** USD per annum
- Contributed to the migration of complex infrastructure to reengineer monolithic application suites into a next-gen, highly scalable MLOps platform.
- Authored 5 ETF pipelines for a Martech Analytics project aimed at driving crucial business decisions at a platform level by evaluating different marketing campaigns
- Developed Pytest frameworks for multiple features as part of a migration project, ensuring robust testing and smooth transitions.
- Automated Data Load pipelines and the process of triggering Azure Devops pipelines using Azure Data factory by implementing a workaround thus improving efficiency by 60%

EDUCATION

University of Birmingham   **Birmingham, England**
Master of Science in Computer Science   **2023-2024**
- Modules: Data Structures and Algorithms, AI and Machine learning, Software Workshop (Python, Flask)

TKM COLLEGE OF ENGINEERING   **Kerala, India**
Bachelor of Technology in Electrical and Electronics Engineering   **2014-2018**
- Graduated with First Class

SKILLS AND PROJECTS

- **Technical Skills**:
  Programming Languages and Frameworks: Python, Java, Pyspark, Flask, Langchain
  Cloud Services: Azure Data Factory, Azure Data Lake, Azure Databricks, Azure Synapse Analytics, Azure DevOps
  Databases: SQL Server, MySQL, Redis, Snowflake
  Data Management and visualization: Data Warehousing, Data Modelling, Tableau
  Tools: Git, Docker, Kubernetes
  Machine Learning & NLP: Retrieval-Augmented Generation (RAG), RAGAS, Model Evaluation and Benchmarking, Quantization of LLMs, Tokenization.
- **Projects:**
  - **Developed a RAG-based chatbot** for London Travel and Tourism data, leveraging LLMs (Llama 2 7b, Mistral-7b-instruct-v0.1, ChatGPT) within the Langchain framework. Implemented FAISS, Retrieval-Cohere Rerank, and a hybrid retriever (BM25 + FAISS) to deliver personalized and contextually relevant responses to user queries.
  - **Evaluated and benchmarked the performance of advanced** LLMs (Llama 2 7b, Mistral-7b-instruct-v0.1, ChatGPT) within the RAG and RAGAS frameworks, demonstrating expertise in model selection and optimization for various NLP tasks.