A.Rajaguhan

AI/ML Engineer

Rooted in Python programming and driven by a passion for AI, my work spans Generative AI and prompt engineering, with a focus on utilizing red teaming techniques to refine LLM responses. Eager to deepen my knowledge in deep and machine learning, I aim to apply AI strategically for organizational success and innovation.

CONTACT

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EXPERIENCE

LLMOps Intern - Ninti.AI

Jan 2024 - April 2024

Developing of RAG Systems, Crafting refined prompts via Prompt Engineering and Deployment of Multi-Modals & LLM models in server.

Highlights:

- **Serverless Deployment**: Streamlining the deployment of Multi-Modal and LLM models serverlessly on cloud platforms for greater efficiency and scalability.
- **Prompt Engineering**: Fine-tuning AI prompts to improve model responses, ensuring more meaningful and context-aware interactions.
- **Developing RAG Systems**: Integrating AI to refine information retrieval and enhance response accuracy in Retrieval-Augmented Generation systems.

PROJECT ACCOMPLISHMENTS

LLM Chatbot for Summarization and Q&A of Uploaded Docs

- Domain · NLP & Gen AI
- Tools & Languages Used: Python, Hugging Face, LangChain, LlamaCPP, Gradio, NVIDIA CUDA suite, PyTorch, Chroma DB.
- Highlights:
  - Leveraging quantized Llama2 - 7B models, created a ChatGPT-like chatbot for efficient performance, utilizing NVIDIA CUDA suite and LlamaCPP for high-speed model inference.
  - Integrated LangChain with conversation, retrieval, and summarization agents for diverse NLP tasks from various file formats such as PDF, DOC, Txt.
  - Built a dynamic and interactive web UI using Gradio for user engagement.

Game-Playing AI Agents

- Domain · Deep Learning & Reinforcement Learning
- Tools & Languages Used: Python, OpenAI Gym, Stable-Baselines3
- Highlights:
  - Trained AI agents to achieve human-level performance in "Cartpole", "Frozen Lake" & "Pong" using Q-Learning, Continuous Q-Learning, PPO.
  - Improved learning efficiency through an enhanced reward model, optimizing agent strategies for peak performance.

DigitGen Model

- Domain · Deep Learning & Gen AI
- Tools & Languages Used: Python, PyTorch, MNIST dataset, Weights & Biases
- Train generator and discriminator models for producing high-quality numeric sequences, employing Weights & Biases for efficient experiment tracking and performance optimization.

SKILLS & INTERESTS

Python Programming

Generative AI - LLMs

Deep Learning

Machine Learning

Prompt Engineering

Red Teaming

Reinforcement Learning

DevOps

Database

EDUCATION

- Sri Shakthi Institute of Engineering & Technology
  B.Tech AI&ML - 8.47 CGPA
- Sainik School Amaravathinagar
  SSLC - 87.8%
  HSLC - 88%

SHORT COURSES

- Deep Learning Specialization by DeepLearning.AI*
- Generative AI with LLMs by DeepLearning.AI & AWS.
- Practical AI with Python and Reinforcement Learning

HACKATHONS

- Finished 1st with Lap Timing of 9s in 2023 **AWS DeepRacer 2.0** Virtual Track Championship KGiSL
- Developed a Local Chatbot for Conversation, Summarization & Q&A for **2023 SIH 1450 .**

SOFT SKILLS

Problem Solving

Adaptability

Time Management

Teamwork & Collaboraton