Chanidu Senarathna

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Location: Haputhale, Sri Lanka
LinkedIn

PROFILE

AI/ML Engineer with 3+ years of self-directed experience in NLP, computer vision, and recently learning about model deployment. Proficient in Python, PyTorch, LangChain, and backend systems with .NET and FastAPI. Passionate about building scalable ML systems and currently learning MLOps and DevOps. Seeking opportunities in AI/ML development or data science roles.

KEY COMPETENCIES

AI/ML Engineer with 3 years of self-driven study and practical experience.

Software Engineer / Back-End Developer with 3 years of self-driven learning and hands-on practice.

Aspiring Data Scientist with over 1 year of self-directed study and practical experience.

TECHNICAL SKILLS

- Programming Languages: Python, C#, Java, JavaScript ,PHP , C , R
- Frameworks & Libraries: TensorFlow, PyTorch, Transformers, Scikit Learn
- Machine Learning & AI: NLP, Computer Vision, Model Fine-Tuning , RAG
- Data Handling: Data Cleaning, Feature Engineering, Normalization, Data Augmentation
- Tools: LangChain , Cohere, Weights & Biases (W&B), Gradio
- Backend: Fast API , Django, .NET Web API , Spring(Java)
- Mathematics & Algorithms: Linear Algebra, Calculus, Probability, DSA, Design Patterns
- SQL : MySQL , SQLite
- Design, Build, and Maintain ML Models

PERSONAL PROJECTS

PrivateGPT Project Zephyr-7B-Beta
About:
Built a private, local LLM-based Q&A system using Zephyr-7B-Beta, enabling secure document-level search and interaction without internet access.
[Source Code]

Skills & Technologies:
- Zephyr-7B-Beta, LangChain, FAISS , Streamlit

Machine Translation Model
About:
Developed a machine translation model using the WMT dataset and fine-tuned the Flan-T5 model with LoRA (Low-Rank Adaptation). Prepared data using TensorFlow.
[Source Code]

Skills & Technologies:
- Machine Translation, Flan-T5, LoRA, TensorFlow, WMT dataset

Image Segmentation
About:
Built an image segmentation model using the U-Net architecture to segment objects from the CamVid dataset.
[Source Code]

Skills & Technologies:
- U-Net architecture, TensorFlow, cv2

Portuguese-to-English Language Translation Model
About:
Built a translation model from Portuguese to English using an encoder-decoder architecture with attention.
[Source Code]

Skills & Technologies:
- Seq2Seq model, Attention Mechanism, TensorFlow, NLTK

Time Series Forecasting with XGBoost
About:
Developed a time series forecasting model utilizing XGBoost, transforming sequential data into a supervised learning format to predict future values.
[Source Code]

Skills & Technologies:
- XGBoost

Document-Level Sentiment Analysis
About:
Built a multi-label classification system to analyze sentiments in Amazon reviews at the document level.
[Source Code]

Skills & Technologies:
- BERT1000, Transformers, PyTorch

EDUCATION

Esoft Metro College (Affiliated with Pearson University)
Diploma in Information Technology (2022-2023)

G.C.E Ordinary Level Examination(B/sri Dhammananda M.V Haputale)
Passed with 3 C's and 5 S's (2021/2022)

Relevant Coursework / Self-Directed Learning
- Linear Algebra | Mathematics | MIT OpenCourseWare
- CS229: Machine Learning
- CS230 Deep Learning - Stanford University
- Stanford CS109 Introduction to Probability for Computer Science
- Machine Learning | Coursera - Taught by Andrew Ng
- CS224n: Natural Language Processing with Deep Learning
- MIT Deep Learning 6.S191
- MIT 6.042J Mathematics for Computer Science, Spring 2015
- Design and Analysis of Algorithms
