Bhuribhat Ratanasanguanvongs

I am passionate about Data Science, specializing in Computer Vision and Machine Learning. Actively expanding my expertise in Natural Language Processing (NLP), with a focus on advanced techniques such as LLM fine-tuning and Retrieval-Augmented Generation (RAG). With a strong engineering background, I am dedicated to continuous learning and eager to apply my skills in the evolving fields of Data Science and Machine Learning.

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EDUCATION

Bachelor of Engineering, Computer Engineering

Chulalongkorn University
2020-2024 - GPAX 3.32
Second Class Honors

Applied Science Program

Traim Udom Suksa School
2017 - 2020 - GPAX 3.59

CERTIFICATIONS

Googal Data Analytics Specialization

IBM Data Engineering Professional

Neural Networks and Deep Learning

Convolutional Neural Networks

EXPERIENCE

Junior Data Scientist   September 2024 - December 2024
Agnos Health

- Utilized open-source data visualization tools like Metabase and Redash to design and implement dashboards. Leveraged SQL and PostgreSQL to extract and analyze data, providing actionable insights and enhancing decision-making processes.
- Developed a predictive model using XGBoost Regressor, achieving a 50% improvement in Mean Squared Error (MSE) compared to the baseline.
- Designed and implemented a recommender system algorithm and API using Python and Django.
- Designed and implemented a middleware using Golang.

Intern, Machine Learning Engineer   July 2023 - June 2023
Bit Studio

- Developed a recognition model for American Sign Language fingerspelling utilizing OpenCV, MediaPipe, and Transformer technology, Kaggle competition hosted by Google I/O 2023.
- Developed an advanced video-to-video with prompt control animation pipeline. Utilized generative models like stable diffusion in combination with the YOLO multi-pose estimation model.
- Finetuned Stable Diffusion model using Dreambooth, Textual Inversion, and LoRA.

PROJECTS

Domain-Specific Chatbot for Thai Language   August 2023 - 2024
Datamind Lab, Chulalongkorn University & NECTEC Thailand

- Developed a Thai law chatbot to answer questions accurately and precisely within specific and up-to-date Thai legal documentation, significantly reducing hallucinations in its responses.
- Developed Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) using LangChain with open-sourced LLMs such as Llama2-7B, SeaLLM-7B, and Typhoon-7B.
- Leveraged High-Performance Computing (HPC) for fine-tuning and inference, utilizing QLoRA to enhance the LLM's expertise in the Thai legal domain and improve its performance.
- Developed a prompt optimization to increase robustness and ensure the LLM follows instructions.
- Optimized inference runtime with TensorRT-LLM via Docker in linux environment.

SKILLS

- Software knowledge: MS Office, Power BI, Tableau, Gephi
- Programming Languages: Python, Java, JavaScript, C++, Go, Scala, SQL
- Language: Thai (Native), English (CU-TEP 89/120)

RELEVANT COURSEWORKS

- Software Engineering
- Software Define System
- Database Systems
- Statistics
- Data Science and Engineering
- Neural Network
- Pattern Recognition
- Computer Vision
- Digital Image Processing

EXTRACURRICULAR ACTIVITIES

Teacher Assistant in NLP Individual Study, 2023

Individual Study PET-CT Brain Scan Sementic Segmentation, 2023

Member of CU Basketball Club, 2020 - 2021

Member of CU Game Developer Club, 2020