Zeyuan Meng

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Education

the Hong Kong Unversity of Science and Technology — Sep, 2020 - Jun, 2024
BEng in Computer Science and Minor in Business — GPA: 3.39/4.3

Exchange Experience

Rice University — Jan, 2023 - May, 2023
BEng in Computer Science and Technology
University of California Berkeley(Virtual Study) — Jun, 2021 - Aug, 2021
BEng in Computer Science and Technology

Publications

Prompt2NeRF-PIL: Fast NeRF Generation via Pretrained Implicit Latent
CVPR 2024 Under Review, Co-first author

Internship

Neusoft — Jan, 2024 - Feb, 2024
NLP Research Internship

Research Experience

Prompt2NeRF-PIL project page — May, 2023 - Nov, 2023
3D generation from text or single image prompt — Python, Blender, Pytorch, Tensorflow, Git

- We have reached impressive in-distribution result, where our model have higher quality and better result than other models.
- On out-of-distribution task the result of our model can also serve as a very good initialization which contains semantic and geometric information.

Time series weather forecasting — Sep, 2022 - Present
Using time series model to forecast pollution factors — Python, Pytorch, Tensorflow, Git, time-series models

- This project aims to use time series models to accurately forecast pollution factors such as $PM_{2.5}$ and O_3 levels.
- Explored different modeling techniques and external factors to improve the accuracy of pollution level forecasts.

Contrastive learning in medical CV — May, 2022 - Nov, 2022
Using Contrastive learning to do prediction in medical CV — Python, Pytorch, Tensorflow, Git, contrastive learning

- This project aims to use different contrastive learning algorithm to do Pneumothorax detection on x-ray image of patients.
- Tried different Constrastive learning model such as MOCO v1, MOCO v2, MOCO v3 on a provided dataset.

Projects

Trivia — Jan, 2023 - Apr, 2023
Build a webapp for Schlumberger ltd to raise people's awareness of environment — C#, React, MongoDB

- We used caching techniques, and used a scalable infrastructure to handle increased traffic.
- We also implemented several tests to ensure our application is robust enough to handle attacks.

Are large language model always better — Mar, 2023 - Apr, 2023
Did a survey to compare performance of several language models — Python, Pytorch, Tensorflow

- Finetuned LSTM, RoBERTa, BERT, BLOOM, GPT-2 model to different tasks
- Compared performance of different models and find out small model may performs better on simple tasks.

Build Your Own World — Jun, 2021
Design and build a Java app — Java

- The application incorporates advanced data structures and algorithms to ensure efficient performance and enable seamless interactions between users and their virtual creations.
- Implemented a user-friendly interface that allows users to easily navigate the application.