Hao Zhang

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EDUCATION

2015.9~2019.6	Guangzhou University	Bachelor of Engineering in Network Engineering
2020.4	TU Darmstadt	Informatik(Master)
GPA	1.5	

INTERNSHIP

2023.11~2024.5　　　　　Internship at Allianz Global Investor　　　　　Darmstadt

- Implemented data upload tool and automated the data-uploading procedure
- Implemented frontend UI via Streamlit and SQL to simplify the operation of SQL server.
- Deploy the micro service via k8s in Azure Cloud Maintain access.

2022.4~2023.4　　　　　HiWi at UKP Lab　　　　　Darmstadt

- Implemented the UI and API for project UKP-SQuARE (square.ukp-lab.de).
- Merged Graph neural network based Question-answer model into UKP-SQuARE platform.

2022.4~2023.10　　　　　HiWi at PTW Lab　　　　　Darmstadt

- Implemented a XGBT model to classify quality of product from lathe.
- Achieved 0.92 F1-score on the unseen data.
- Completed the SmartOfficeStation project.

2021.5~2021.7　　　　　HiWi at SEEMOO Lab　　　　　Darmstadt

- Maintained Nextcloud and backup server, addressed bugs of Nginx.
- Documented the configuration of service by using the Git Lab.

PROJECTS

2023.05~2023.10　　　　Master Thesis：Grounding Text Generation with Knowledge Graphs

- Fine-tuned T5 model on CSQA dataset as baseline, got 0.70 accuracy.
- Grounded generative model T5 on knowledge graph ConceptNet
- Pretrained graph based T5 model on Bookcorpus data
- Fine-tuned graph based T5 model and got improvement 6.4% and 5.3% on dev and test set

2022.04~2022.07　　　　Project Seminar：Wettbewerb KI in der Medizin　　　　　Darmstadt

- Implemented a parallelized (1d-CNN+LSTM) model
- Achieved 0.94 F1-score on unseen data.

- Used a Random over sampling to address unbalance data set.

2021.09~2022.01   Course Side Project：Skin-lesion Detection   Darmstadt

- Implemented an ensemble Model with 5 CNN based model as weak classifiers.
- Used majority voting got the accuracy higher than 89%.
- Used Gradio to implement a WebUI for Skin-lesion Detection task

PUBLISHED PAPER

- UKP-SQuARE v2: Explainability and Adversarial Attacks for Trustworthy QA
- UKP-SQuARE v3: A Platform for Multi-Agent QA Research

TECHNICAL SKILLS

Proficient in： Python (Proficient), Vue.JS(Familiar) C/C++(Familiar)

Machine Learning：SVM,RF,GBDT,AdaBoost,NB,K-Means

Deep Learning：CNN, LSTM, Transformer, BERT, Roberta, T5, GNN, GCN, GraphSAGE, GraphAttention Networks

Web Development：HTML, JavaScript, CSS3, XML, Wordpress,VueJs, Django, FastAPI

Database：SQL, Mysql, MongDB

Data Science：Pytorch, Scikit-learn ,Numpy, Pandas, Spacy, gensim

DevOps： Linux ,Nginx, Bash, Docker, Vim, Git ,Latex, Vmware, Azure, Kubernetes, Dremio, Datadog, Confluence

LANGUAGE SKILLS

TestDaf : 17   English : B2~C1