Yuyang Zhou

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Education

Beijing University of Posts and Telecommunications, Bachelor's Degree   2017 – 2021
- Major: Data Science and Big Data Technology, *School of Computer Science*, GPA: 86.95/100
- Core Modules: Machine Learning(88), Data Mining(90), Linear Algebra(90), Discrete Mathematics(94)

Publications

- Z. Jin, T. Men, H. Yuan, **Y. Zhou**, P. Cao, Y. Chen, Z. Xue, K. Liu, J. Zhao, **CogKTR: A Knowledge Enhanced Text Representation Toolkit for Natural Language Understanding**, under review by EMNLP 2022 Demo, Abu Dhabi, Emirates. [code] [demo]
- M. Gao, X. Yu, L. Ren, H. Cai, Z. Wang, **Y. Zhou**, **A Renewable Energy Certificate Trading System Based on Blockchain**, accepted by TrustCom 2021: International Conference on Trust, Security and Privacy in Computing and Communications, Shenyang, China. [pdf]

Skills

- **Natural Language Processing**: experienced in deep learning toolkits like Pytorch, Huggingface, have participated in several NLP task, understand basic knowledge about machine learning and deep learning.
- **Programming Languages**: experienced in Python, comfortable with database query language like SQL, Cypher, etc.
- **Developing Tools**: experienced in Linux-based programming, have experience with team tools like Git, etc.
- **Software Engineering**: experienced in popular website framework like hexo, jekyll, familiar with Flask Framework.
- **Language**: English (IELTS: 6.5 (Listening: 6.5/Reading: 7.0/Writing: 6.5/Speaking: 6.5)), Chinese (Naive)

Work Experience

Institute of Automation, Chinese Academy of Science, Beijing, China   06/2022 – Present
(**Research Group of Speech and Language Technology**) Research Intern
- Responsible for factual knowledge enhanced Natural Language Understanding (NLU) tasks in CogKTR. Implemented named entity recognition (NER), factual knowledge grounding and retrieval in Python.
- Participated in constructing a unified paradigm to encompass all methods of injecting knowledge into models, validated the effectiveness of knowledge-enriched models on downstream tasks like text classification, question answering, etc.
- Designed and developed the back-end of CogKTR website with Flask framework cooperating with front-end engineer, made introduction video for CogKTR.

Xiaomi, Beijing, China   03/2022 – 05/2022
(**Internet Business Department**) Product Manager Intern
- Participated in completing commercialization strategy, including advertising form, display strategy, etc.
- Improved advertising methods by data mining, tried varies strategies to increase advertisement income.

State Grid Blockchain Technology (Beijing) Co., LTD, Beijing, China   06/2021 – 10/2021
(**Blockchain Application**) Research Intern
- Developed a hybrid Renewable Energy Certificate(REC) trading system based on Consortium Blockchain. Enhanced the view replacement protocol in the Practical Byzantine Fault Tolerance(PBFT) algorithm.
- Enhanced the method of anomaly detection in Distribution Automation System (DAS), which can detect the abnormal data rapidly and take appropriate measures using PCA and Isolation Forest Algorithm.

Honors

- 1st **Prize** of the Youth Innovation Contest in State Grid Company. Proposed a blockchain-based wage payment system and smart contract for laborers.   09/2021
- **Meritorious Winner (Top 7**%) in the Interdisciplinary Contest in Modeling. Constructed a model to analyze the music influence between musicians over a period of 80 years. [blog]   02/2021
- **Meritorious Winner (Top 5**%) in the Mathematical Contest in Modeling. Discovered the relationship between reviews and star rankings of specific products on Amazon. [blog]   01/2020
- 3rd **Prize** of National Undergraduate Mathematics Competition   11/2018