Tengfei Ma

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Supervised by **Xiangxiang Zeng**

Education

- **M.S. Hunan University**
  Computer Science · GPA: 3.75
  September 2019 to June 2022
- **B.S. Zhengzhou University**
  Software Engineering · GPA: 84.86 (3/297)
  September 2015 to July 2019

Internship

- **Alibaba** · **Ads Algorithm**
  Building ads recall pipeline based on graph neural network and user historical behavior.
  June 2022 to present
- **Huawei Research Institute** · **GES**
  AI algorithm engineer
  Graph deep learning and its interpretability for fraud detection
  June 2021 to Octomber 2021
- **Amazon Shanghai AI Lab** · **DGL Group**
  Applied Scientist Intern
  The interpretability of KGE model using DGL and DGL_KE based on biomedical KGs
  December 2020 to June 2021

Honors & Awards

- **Honors**
  2022 Outstanding Graduate Student
  2019 Excellent Graduation Paper
- **Awards**
  2021 Academic Scholarship of Hunan University
  2018 Academic Scholarship of Zhengzhou University

Strengths

- Rich Experience In Model Coding
- Fast Learner, Innovator

Skills

- **Development:** Linux, Git, Shell, etc.
- **Frameworks:** Pytorch, Tensorflow, DGL, DGL_KE, PyG, Networkx, Sklearn, .Net Core, etc.

Project Experience

- **Knowledge Graph Enhanced Multi-Task Learning for Molecular Interaction**
  The paper designed an effective Shared Unit that helps the model to jointly preserve the semantic relations of drug entity and the neighbor structures of the compound in both knowledge graph and molecular graph.
- **KGNN: Knowledge Graph Neural Network for Drug-Drug Interaction Prediction**
  We proposed a model to extract both high-order structures and semantic relations of the KG for drug-drug interaction prediction.

Publications

- **Tengfei Ma**, Xuan Lin, et al., KG-MTL: Knowledge Graph Enhanced Multi-Task Learning for Molecular Interaction, in *IEEE Transactions on Knowledge and Data Engineering, 2022, doi: 10.1109/TKDE.2022.3188154*
- Yujie Chen, **Tengfei Ma**, et al., MUFFIN: Multi-Scale Feature Fusion for Drug–Drug Interaction Prediction, *Bioinformatics*, Volume 37, Issue 17, 2021, Pages 2651–2658, doi: 10.1093/bioinformatics/btab169.
- Xiangxiang Zeng*, Xiang Song*, **Tengfei Ma***, *et al.*, Repurpose Open Data to Discover Therapeutics for COVID-19 Using Deep Learning. *Journal of Proteome Research*, , 2020, 19(11), 4624-4636, doi: 10.1021/acs.jproteome.0c00316. (cover paper)
- Xuan Lin, Zhe Quan, ZhiJie Wang,**Tengfei Ma**, Xiangxiang Zeng., KGNN: Knowledge Graph Neural Network for Drug-Drug Interaction Prediction., in *IJCAI*, 2020