Zhihan Zhou

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Personal Website / LinkedIn / Google Scholar

EDUCATION

Northwestern University
- Doctor of Philosophy, Computer Science (GPA: **4.0/4.0**)   09/2020 - Present
- Master of Science, Computer Science (GPA: **4.0/4.0**)   09/2018 - 06/2020

Zhejiang University
- Bachelor of Science, Mathematics and Applied Mathematics   09/2014 - 06/2018

SELECTED PUBLICATIONS

- **Learning Dialogue Representations from Consecutive Utterances**

  Zhihan Zhou, Dejiao Zhang, Wei Xiao, Nicholas Dingwall, Xiaofei Ma, Andrew Arnold, Bing Xiang

  Proceedings of *NAACL 2022*

- **Trade the Event: Corporate Events Detection for News-based Event-driven Trading**

  Zhihan Zhou, Liqian Ma, Han Liu

  Proceedings of *ACL 2021, Findings*

- **DNABERT: Pre-trained Bidirectional Encoder Representation from Transformers for DNA Language Modeling in Genome**

  Yanrong Ji*, Zhihan Zhou*, Han Liu, Ramana V Davuluri (*: joint first author)

  Published on *Bioinformatics*, btab083, 2021

- **Few-shot Slot Tagging with Collapsed Dependency Transfer and Label-enhanced Task-adaptive Projection Network**

  Yutai Hou, Wanxiang Che, Yongkui Lai, Zhihan Zhou, Yijia Liu, Han Liu, Ting Liu

  Proceedings of *ACL 2020*

- **Joint Speaker Diarization and Recognition Using Convolutional and Recurrent Neural Networks**

  Zhihan Zhou, Yichi Zhang, Zhiyao Duan

  Proceedings of *ICASSP 2018*

WORK EXPERIENCE

Applied Scientist Intern @ Amazon Web Services   09/2021 – 12/2021
- Conduct an independent research project on Conversational AI.
- Perform large-scale contrastive conversational model pre-training to improve few-shot dialogue understanding.

Research Assistant @ MAGICS Lab, Northwestern University   01/2019 - Present
- Conducted multiple Research projects including but not limited to:

  Drug Repurposing: Exploit Graph Attention Network (GATs) to predict the relationships between drugs and diseases on a huge biologic knowledge graph which contains millions of nodes and tens of millions of edges.

  Virus Genome Analysis: Utilize Longformer-based language model to analyze the SARS_CoV_2 virus.

  Time-Series Modeling: Perform contrastive representation learning for time-series data.

  Massive News Acquisition: Build a system that acquires news articles in real-time from 10000+ websites.

SKILLS

- Research Areas: Natural Language Understanding, Conversational AI, Language Models, Bioinformatics
- Programming languages: Python, Java, R, HTML, CSS
- Skills: Pytorch, AWS, Kubernetes, Docker, Linux