Zhihan Zhou

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EDUCATION

Department of Computer Science, Northwestern University 09/2018 - Present

- Doctor of Philosophy, Computer Science
  Advisor: Han Liu GPA: **4.0/4.0**

School of Mathematical Sciences, Zhejiang University 09/2014 - 06/2018

- Bachelor of Science, Mathematics and Applied Mathematics

PUBLICATIONS

- **Joint Speaker Diarization and Recognition Using Convolutional and Recurrent Neural Networks**
  Zhihan Zhou*, Yichi Zhang, Zhiyao Duan*
  Proceedings of ICASSP 2018, Calgary, Canada
- **ELLPMDA: Ensemble learning and link prediction for miRNA-disease association prediction**
  Xing Chen,* ***Zhihan Zhou****, Yan Zhao (*: joint first author)*
  Published on RNA Biology, pages 807-818, volume 15, 2018
- **Few-Shot Sequence Labeling with Label Dependency Transfer and Pair-wise Embedding**
  Yutai Hou, ***Zhihan Zhou****, Yijia Liu, Ning Wang, Wanxiang Che, Han Liu, Ting Liu*
  Preprint 2019
- **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)*
  Preprint 2020

SELECTED EXPERIENCE

Research Assistant @MAGICS Lab, Northwestern University 01/2019 - Present

- Conducted several NLP projects including but not limited to:

  Event-driven Trading: Detect events (e.g., acquisitions, stock repurchase, etc.) from news articles in real-time and perform trading based on the detected events.

  Adversarial Training for Dialogue: Built a chitchat system under a Generative Adversarial Net (GAN) framework by taking seq2seq chatbot as generator and retrieval-based chatbot as discriminator.

  User-simulator for Dialogue Management: Construct a planning-based user simulator to train a better reinforcement learning-based dialogue management agent for task-oriented chatbot system.
- Deployed a distributed computing environment on a private Kubernetes cluster consists of 8 nodes. We deploy an identical container on each of cluster node and utilize Horovod to support distributed computation.

Visiting Student @AIR Lab, University of Rochester 07/2017 - 10/2017

- Designed a system to simultaneously implement speaker diarization and recognition to identify specific speakers and estimated corresponding time boundaries. Employed an LSTM to integrate the speaker classification results and the probabilities of speaker change at each time step predicted by a CNN.

COMPUTER SKILLS

- Computer languages: Python, C, R, Javascript, HTML, CSS, Matlab
- Skills: Kubernetes, Docker, Linu