ZHANKUI HE

Mobile: (+86) 177-1797-8343 Email: zkhe15@fudan.edu.cn

EDUCATION

B.S. in Computer Science (Data Science Track), Fudan University (FDU), Shanghai *2015.09 – Present*
- **GPA: 3.67/4.0** (2/38 in Data Science Track)
- **Awards:** 2016 Shanghai Scholarship (top 1% in FDU), 2016 Excellent Student Award (top 3% in FDU).
- Selected into Elite Project (talent training project in whole Computer Science School for top 40 students.).

Exchange Student, National University of Singapore (NUS), Singapore *2017.09 – 2017.12*
- Worked as a research assistant for Prof. Chua Tat-Seng in LMS Lab, NUS
- **Award:** 2017 Oriental CJ Scholarship (less than 9% of exchange students from FDU).

RESEARCH EXPERIENCES

Neural Attentive Item Similarity Model for Recommendation | Research Assistant *2017.07 – 2017.11*
*Advisor: **Xiangnan He**, Senior Research Fellow, LMS Lab, NUS*
- Reproduced the classic item-based *Factored Item Similarity Model* (FISM) via TensorFlow.
- Implemented a novel item-based model based on *FISM* with attention network.
- Extended standard attention network by adding a parameter on denominator of *softmax* considering the influence of item quantity, which improved the performance on real-world datasets by almost 5%.
- Contributed to a second-author paper summited to **TKDE** and received high ratings from reviewers.

Adversarial Learning for Recommendation System | Research Assistant *2017.09 – 2018.01*
*Advisor: **Xiangnan He**, Senior Research Fellow, LMS Lab, NUS*
- Realized three state-of-the-art user-based recommendation system models via TensorFlow.
- Added adversarial noise mechanism to explore and improve the robustness of traditional models.
- Contributed to a second-author paper under reviewing in **SIGIR2018.**

Speaker Classification in Dialogue System | Research Assistant *2017.12 - Present*
*Advisor: **Zhongyu Wei**, Assistant Professor, School of Data Science, FDU*
- Proposed an innovative task on Speaker Classification based on text information from dialogues instead of traditional speech recognition.
- Designed a hierarchical *LSTM* encoder to embed the persona information of speaker and encode the information from each sentence of dialogues respectively.
- Constructed *traditional* and *hierarchical seq2seq* models via PyTorch.

WORKING EXPERIENCE

Citory Ltd. , Shanghai (an AI startup by 3 MIT & Harvard alumni) | Algorithm Intern *2017.12 - Present*
*Superviosr: **Fan Zhang**, PhD, Geo-information Science Department, Chinese University of Hong Kong*
- Implemented state-of-the-art satellite imagery segmentation models such as *U-net* via Keras.
- Managed *PostgreSQL* database system for storing large-scale image datasets.

PUBLICATION

- **NAIS: Neural Attentive Item Similarity Model for Recommendation**
  *Xiangnan He, **Zhankui He**, Jingkuan Song, Zhenguang Liu, Yu-Gang Jiang, & Tat-Seng Chua*
  IEEE Transactions on Knowledge and Data Engineering (under reviewing)

HONORS AND AWARDS

- **2016 Shanghai Scholarship** (top 1% in FDU)
- **2016 Fudan University Excellent Student** (top 3% in FDU)
- **2017 Oriental CJ Scholarship** (less than 9% of exchange students from FDU)
- **2016 Fudan University Hackthon InnorSpring Prize** (top 9 among 55 groups)
- **2017 Computer Science Elite Project Scholarship** (a research grant for 40 students in Elite Project)