

KAILI HUANG

kailihuang.com · [linkedin.com/in/huangkaili/](https://www.linkedin.com/in/huangkaili/) · [Google Scholar](https://scholar.google.com/citations?user=KailiHuang)
kaili.khuang@gmail.com · (650) 665-4877

EDUCATION

Stanford University

MS in Computer Science, GPA: 4.0/4.0

Stanford, CA

Sep. 2021 - Jun. 2023

Tsinghua University

BE in Industrial Engineering, CS GPA: 3.8/4.0

Beijing, CHINA

Sep. 2016 - Jul. 2020

EXPERIENCE

ByteDance (TikTok)

Machine Learning Engineer

Beijing, CHINA

Jul. 2020 - Aug. 2021

Fake News Detection: Devised a workflow from scratch to tackle the fake news problem. Discovered 100 fake news articles per day on average. Achieved 50% correctness as a fake news detection pipeline.

- Formulated data annotation policies; Designed data quality indicators and monitored the human labelling process; Provided 2 million clean, uniformly formatted, high-quality labeled data for downstream tasks.
- Built BERT-based classification models to detect pieces of news worthy of fact-checking; Achieved 0.60 F1 scores tested on highly imbalanced and heterogeneous online data.
- Developed natural language inference (NLI) models to extrapolate the truthfulness of news based on a library of authoritative media publications; Devised data augmentation strategies to alleviate data imbalance issues; Achieved 0.72 macro-F1 scores; Combined the NLI models with symbolic learning to enhance numerical reasoning, which increased F1 scores by 15%.
- Created automatic pipelines of periodically taking increasing human-annotated data, updating the models and analyzing the predictions; Built remote procedure call (RPC) services to deploy the models into the online censorship systems.

Bot-Written Articles Detection: Synthesized articles with generative pre-training (GPT) models; Built BERT-based models to identify AI-generated articles, whose F1 scores reached 0.98.

Tsinghua Conversational AI Lab

Research Assistant | Adviser: [Minlie Huang](#)

Beijing, CHINA

Jan. 2019 - Jun. 2020

- Built the first large-scale Chinese cross-domain Wizard-of-Oz dataset by constructing a traveling database, generating user goals, and collecting dialogue samples; Analyzed the dataset on natural language generation (NLG) tasks by building a series of benchmark models; Published on TACL. [\[Paper\]](#) [\[Code\]](#)
- Constructed a large-scale cleaned Chinese conversation corpus (LCCC), which serves as a benchmark for the study of open-domain conversation generation; Presented a series of fine-tuned GPT models for Chinese dialogues; Received NLPCC2020 Best Student Paper Award. [\[Paper\]](#) [\[Code\]](#)

PROJECTS

- **Multi-lingual Dialog System:** Investigated the impact of historical turns fed to the multi-lingual task-oriented dialog system, with the goal of reducing the amount of natural language encoded and enhancing the model's transfer learning abilities. [\[PDF\]](#)
- **Graph Neural Network:** Built a base graph attention network (GAT) and applied the most popular tricks (node2vec embeddings, label reuse, C&S, etc) to it, in order to tackle the arXiv paper classification problem. Analyzed and compared the effectiveness of different tricks with experimental results. [\[Blog\]](#)

SELECTED PUBLICATIONS

- Qi Zhu, **Kaili Huang**, Zheng Zhang, Xiaoyan Zhu, and Minlie Huang. CrossWOZ: A Large-Scale Chinese Cross-Domain Task-Oriented Dialogue Dataset. Accepted by **TACL**. [\[Paper\]](#) [\[Code\]](#)
- Hao Zhou, Chujie Zheng, **Kaili Huang**, Minlie Huang, and Xiaoyan Zhu. KdConv: A Chinese Multi-domain Dialogue Dataset Towards Multi-turn Knowledge-driven Conversation. Accepted by **ACL2020**. [\[Paper\]](#) [\[Code\]](#)

SKILLS

- Programming: Python, C/C++, Java, Scala, SQL, R, Lua, Bash, JavaScript, HTML, CSS
- Frameworks & Tools: PyTorch, TensorFlow, Hadoop, Hive, Spark, GCP, Azure, MongoDB, Django, Git