

SHUAICHEN CHANG

Amazon Web Services AI Lab
chang.1692@osu.edu <https://shuaichenchang.github.io/>

EMPLOYMENT

Amazon Web Services AI Lab Aug 2023 - Present
Applied Scientist

EDUCATION

The Ohio State University Aug 2017 - July 2023
Ph.D. in Computer Science and Engineering

Fudan University Sep 2013 - Jun 2017
Bachelor in Computer Science and Technology, Outstanding Student Honor Program

RESEARCH EXPERIENCE

Research Assistant, The Ohio State University Aug 2017 - Present
Advisor: Eric Fosler-Lussier

Worked on robust and generalizable natural language interfaces to structured data (tables, databases, maps).

Applied Scientist Intern, Amazon AWS AI May 2022 - Aug 2022
Mentor: Jun Wang, Patrick Ng, Zhiguo Wang

Designed and curated a diagnostic evaluation benchmark towards Text-to-SQL robustness.

Applied Scientist Intern, Amazon Alexa AI May 2021 - Aug 2021
Mentor: Vaibhav Kumar, Sunghyun Park, Sungjin Lee

Worked on heterogeneous feature representation pre-training in large-scale conversational AI system.

Research and Development Intern, Pinterest May 2020 - Aug 2020
Mentor: Supeng Ge, Mao Ye

Developed a unified ads retrieval model on different surfaces, outperformed the production model up to 15% on revenue and 10% on user engagement.

Research Intern, JD.com AI research May 2018 - Aug 2018
Mentor: Jing Huang, Xiaodong He

Worked on converting natural language question to structured query (SQL) for unseen Database tables.

TEACHING EXPERIENCE

Instructor, Introduction to Artificial Intelligence (CSE 3521) Fall 2022

PUBLICATIONS

How to Prompt LLMs for Text-to-SQL: A Study in Zero-shot, Single-domain, and Cross-domain Settings Preprint 2023
Shuaichen Chang, Eric Fosler-Lussier

Dr.Spider: A Diagnostic Evaluation Benchmark towards Text-to-SQL Robustness ICLR 2023
Shuaichen Chang, Jun Wang, Mingwen Dong, Lin Pan, Henghui Zhu, Alexander Hanbo Li, Wuwei Lan, Sheng Zhang, Jiarong Jiang, Joseph Lilien, Steve Ash, William Yang Wang, Zhiguo Wang, Vittorio Castelli, Patrick Ng, Bing Xiang **Notable Top 5%**

MapQA: A Dataset for Question Answering on Choropleth Maps NeurIPS TRL workshop, 2022
*Shuaichen Chang**, *David Palzer**, *Jialin Li*, *Eric Foster-Lussier*, *Ningchuan Xiao* (* denotes equal contribution)

ExplainaBoard: An Explainable Leaderboard for NLP ACL , 2021
Pengfei Liu, *Jinlan Fu*, *Yang Xiao*, *Weizhe Yuan*, *Shuaichen Chang*, *Junqi Dai*, *Yixin Liu*, *Zihuiwen Ye*, *Graham Neubig*
Best Demo Paper

Prefix-to-SQL: Text-to-SQL Generation from Incomplete User Questions ACL NLP4Prog workshop, 2021
Naihao Deng, *Shuaichen Chang*, *Peng Shi*, *Tao Yu*, *Rui Zhang*

Did You Ask a Good Question? A Cross-Domain Question Intention Classification Benchmark for Text-to-SQL EMNLP IntEx-SemPar workshop, 2020
Yusen Zhang, *Xiangyu Dong*, *Shuaichen Chang*, *Tao Yu*, *Peng Shi*, *Rui Zhang*

Zero-shot Text-to-SQL Learning with Auxiliary Task AAAI, 2020
Shuaichen Chang, *Pengfei Liu*, *Yun Tang*, *Jing Huang*, *Xiaodong He*, *Bowen Zhou*

Contextualized Non-local Neural Networks for Sequence Learning AAAI, 2019
Pengfei Liu, *Shuaichen Chang*, *Xuanjing Huang*, *Jian Tang*, *Jackie Chi Kit Cheung*

SELECTED AWARDS

Post-internship Fellowship, Amazon	2022
Best Demo Paper, ACL	2021
Honors Student in Top Talent Undergraduate Training Program, Fudan University	2017
National Scholarship, Ministry of Education of P.R.China	2016
National Scholarship, Ministry of Education of P.R.China	2015
Silver Medal in the ACM-ICPC Asia Regional, ACM-ICPC	2013

PROFESSIONAL SKILLS

Programming Languages	Python, C/C++, Java, SQL
Libraries	Pytorch, TensorFlow, Theano, OpenCV