# Zhoujun Cheng (承洲骏)

Mail • Homepage • Github • Google Scholar

#### **EDUCATION** Shanghai Jiao Tong University, Shanghai, China

■ M.S. in Computer Science

• Supervisor: Prof. Fan Cheng

■ B.S. in Computer Science (IEEE honor class)

• Overall GPA: 90.3 / 100, Rank: 10 / 84

Sep 2021 – Mar 2024 (Expected)

Sep 2017 - Jun 2021

### PUBLICATIONS & PREPRINTS

- [1] **Zhoujun Cheng\***, Tianbao Xie\*, Peng Shi, Chengzu Li, Rahul Nadkarni, Yushi Hu, Caiming Xiong, Dragomir Radev, Mari Ostendorf, Luke Zettlemoyer, Noah A. Smith, Tao Yu, "Binding Language Models in Symbolic Languages" (ICLR 2023 Spotlight, with scores 8,8,8)
- [2] Tianbao Xie\*, Fan Zhou\*, **Zhoujun Cheng\***, Peng Shi\*, Luoxuan Weng\*, Yitao Liu\*, Toh Jing Hua, Junning Zhao, Qian Liu, Che Liu, Leo Z. Liu, Yiheng Xu, Hongjin Su, Dongchan Shin, Caiming Xiong, Tao Yu, "OpenAgents: An Open Platform for Language Agents in the Wild " **(Preprints 10.2023)**
- [3] **Zhoujun Cheng**, Jungo Kasai, Tao Yu, "Batch Prompting: Efficient Inference with Large Language Model APIs" (EMNLP 2023 Industry Track)
- [4] **Zhoujun Cheng\***, Haoyu Dong\*, Zhiruo Wang\*, Ran Jia, Jiaqi Guo, Yan Gao, Shi Han, Jian-Guang Lou, Dongmei Zhang, "HiTab: A Hierarchical Table Dataset for Question Answering and Natural Language Generation" (ACL 2022)
- [5] **Zhoujun Cheng\***, Haoyu Dong\*, Ran Jia, Pengfei Wu, Shi Han, Fan Cheng, Dongmei Zhang, "FORTAP: Using Formulae for Numerical-Reasoning-Aware Table Pretraining" **(ACL 2022)**
- [6] Fan Zhou, Mengkang Hu, Haoyu Dong, **Zhoujun Cheng**, Shi Han, Dongmei Zhang, "TaCube: Pre-computing Data Cubes for Answering Numerical-Reasoning Questions over Tabular Data " **(EMNLP 2022 Oral)**
- [7] Haoyu Dong, **Zhoujun Cheng**, Xinyi He, Mengyu Zhou, Anda Zhou, Fan Zhou, Ao Liu, Shi Han, Dongmei Zhang, "Table Pre-training: A Survey on Model Architectures, Pretraining Objectives, and Downstream Tasks" **(IJCAI 2022 Survey Track)**
- [8] Yang You, Yujing Lou\*, Chengkun Li\*, **Zhoujun Cheng**, Liangwei Li, Lizhuang Ma, Cewu Lu, Weiming Wang, "KeypointNet: A Large-scale 3D Keypoint Dataset Aggregated from Numerous Human Annotations" **(CVPR 2020)**
- [9] Yujing Lou\*, Yang You\*, Chengkun Li\*, Zhoujun Cheng, Liangwei Li, Lizhuang Ma, Weiming Wang, Cewu Lu, "Human Correspondence Consensus for 3D Object Semantic Understanding" (ECCV 2020)

### EXPERIENCE

#### **HKUNLP**, The University of Hong Kong, Hong Kong, China

Research Assistant

Apr 2022 - Present

- Developed a language agent platform, including a data agent replicating the OpenAI code interpreter.
- $\bullet \ \ Incorporated \ LLM \ functionalities \ into \ symbolic \ language \ to \ enhance \ its \ coverage \ and \ interoperability.$
- ullet Proposed an efficient LLM batch prompting method, cutting token and time costs by 5 imes under few-shot learning.
- Advisor: Prof. Tao Yu

### Microsoft Research Asia DKI Group, Beijing, China

■ Research Assistant

Dec 2020 – Apr 2022

- Built a hierarchical table dataset for Table QA and NLG, and designed a hierarchy-aware logical form for it.
- Enhanced tabular models with stronger numeric-reasoning skills by pretraining on spreadsheet formulas.
- · Advisor: Haoyu Dong

### Alibaba TmallSearch, Hangzhou, China

• Engineering Intern, TmallShop Search

Jul 2020 – Sep 2020

• Implemented a commodity recommendation module for "Double Eleven Carnival".

• Advisor: Jin He

### MVIG Group, Shanghai Jiao Tong University, Shanghai, China

Research Intern

Jan 2019 – Feb 2020

- Collected a 3D keypoint dataset and explored 3D dense correspondence with different model backbones.
- Advisor: Prof. Cewu Lu

# AWARDS & SCHOLARSHIPS

National Scholarship (rank 2 / 109)
Shanghai Outstanding Graduates (rank 1 / 25)
MSRA Stars of Tomorrow
2021
2021
2021
2021 and Place at IBM Call for Code Hackathon, Shanghai

2018 - 2020

# SERVICES & TEACHING

**Reviewer:** ACL Rolling Review (ARR) 2022/2023, NAACL 2022 SUKI Workshop, NeurIPS 2022/2023 TRL Workshop, ICLR 2023 DL4C Workshop, CCL 2022/2023

### **Teaching Assistant:**

- Introduction to Programming, Shanghai Jiao Tong University
- Introduction to Machine Learning, Shanghai Pinghe High School

# OPEN-SOURCE PROJECTS

### **OpenAgents** (2k stars on github, 5k demo users)

■ SJTU Zhiyuan Honor Scholarship (top 5%)

- (Co-lead contributor) An agent platform for using, hosting and building language agents, covering:
  - Data Agent: data analysis by generating Python/SQL code, augmented with data tools
  - Plugins Agent: integrating 200+ third-party plugins to handle daily life scenarios
  - Web Agent: exploring websites automatically as browser extension

#### Humanprompt

- (Co-lead contributor) A unified framework for LLM-prompting research:
  - Modularized: the pipeline of prompting LLM is decomposed into functional modules
  - Configurable: simply write "one config, one experiment"

#### **SKILLS**

- Programming Languages: Python > SQL  $\approx$  C/C++ > Java  $\approx$  HTML/CSS  $\approx$  JavaScript
- Tools & Packages: Huggingface, Pytorch, LangChain, AllenNLP, Docker, Git, Vim
- Languages: Native Mandarin, Fluent English (TOEFL 103)