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## Research Statement

My research interest is designing mix-initiative systems to enhance human (lay users and domain experts) capabilities through interacting with AI technologies (NLP, CV, etc.). I approach human-AI interaction by exploring the design of information-based interfaces powered by AI's knowledge representation capabilities. I hope to contribute to research fields in HCI such as visualization and user interface software and technology through technical and empirical methods.

## Education

2020–2024 **B.E. in Computer Science and Technology**, Tongji University, Shanghai, China.  
GPA: 4.69/5 (Equivalent to 91.86/100)

## Publications

- [P.3] **More Samples or More Prompt Inputs? Exploring Effective In-Context Sampling for LLM Few-Shot Prompt Engineering.**  
Bingsheng Yao; Guiming Chen; [Ruishi Zou](#); Yuxuan Lu; Jiachen Li; Shao Zhang; Sijia Liu; James Hendler; Dakuo Wang  
*NAACL 2024 Findings* DOI: [10.48550/arXiv.2311.09782](https://doi.org/10.48550/arXiv.2311.09782).
- [P.2] **iTutor: A Generative Tutorial System for Teaching the Elders to Use Smartphone Applications.**  
[Ruishi Zou](#); Zi Ye; Chen Ye.  
*ACM UIST 2023 Adjunct (Poster Extended Abstract)*  
GitHub: [Motion115/iTutor](https://github.com/Motion115/iTutor). Project: [motion115.github.io/iTutor](https://motion115.github.io/iTutor). DOI: [10.1145/3586182.3616663](https://doi.org/10.1145/3586182.3616663).
- [P.1] **Chart2Vec: A Universal Embedding of Context-Aware Visualizations.**  
Qing Chen; Ying Chen; [Ruishi Zou](#); Wei Shuai; Yi Guo; Jiazhe Wang; Nan Cao.  
*Under review at IEEE Transactions on Visualization and Computer Graphics (2024)*  
GitHub: [idvxlabs/chart2vec](https://github.com/idvxlabs/chart2vec). Project: [chart2vec.idvxlabs.com](https://chart2vec.idvxlabs.com). DOI: [10.48550/arXiv.2306.08304](https://doi.org/10.48550/arXiv.2306.08304) (Before revision).

## Professional Experience

- 2023.10 - Present **Research Assistant**, Human-Centered AI Lab, **Northeastern University**, Remote  
Advisor: [Prof. Dakuo Wang](#)
- **In-Context Sampling [P.3]**: Conducted experiments to benchmark the In-Context Sampling (ICS) strategy on various large language models and tasks; Implemented sampling strategy used with ICS.
- 2023.4 - Present **Research Assistant**, Student Innovation Center of [CEIE](#), **Tongji University**, Shanghai, China  
Advisor: [Prof. Chen Ye](#)
- **iTutor: A Generative Tutorial System for Teaching the Elders to Use Smartphone Applications [P.2]**: Proposed a method leveraging large language models that support UI image-to-instruction generation to facilitate elders in using smartphone applications; Coordinated a team of four to participate in the *China Collegiate Computing Contest - HCI Innovation Competition 2023* and was awarded third prize.
- 2023.4 - 2023.10 **Research Intern**, Computer Music Group, **Carnegie Mellon University**, Remote  
Advisor: [Prof. Roger B. Dannenberg](#)
- **Music Patterns and Music Models**: Explored using neural networks to perform order selection across various orders of Markov models; Slightly outperformed the best single model benchmark.
- 2022.3 - 2023.9 **Research Intern**, Intelligent Big Data Visualization Lab, **Tongji University**, Shanghai, China  
Advisor: [Prof. Qing Chen](#) and [Prof. Nan Cao](#)
- **Chart2Vec: A Universal Embedding of Context-Aware Visualizations [P.1]**: Assisted in the training and evaluation (quantitative and qualitative) of the Chart2Vec model, a context-aware representation learning model for chart specifications that could support various applications such as visualization recommendation.
  - **Chart2Vec Production Deployment** (2023.7 - 2023.9, AntV Team, **Ant Group**, Shanghai, China)

## Selected Projects

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- [SP.3] **UI2Vec: A Multimodal Embedding Method for Robust UI Classification**  
2023.3 - 2023.6  
Venue: Multimedia Course Project  
Advisor: [Prof. Hanli Wang](#), Tongji University  
GitHub: [Motion115/UI2Vec](#). Report: [Technical Report \(Chinese\)](#)
- [SP.2] **Forest Orchestra – Interactive Conducting Game for Music Education**  
2022.9 - 2022.12  
Venue: *China Collegiate Computing Contest - HCI Innovation Competition 2022*  
Advisor: [Prof. Yinan Zhang](#), Tongji University
- [SP.1] **Data-driven Approach on Identifying Systemic Financial Risk**  
2022.5 - 2023.3  
Venue: Student Innovation Training Program (2022 - 2023 Academic Year)  
Advisor: [Prof. Dawei Cheng](#), Tongji University

## Awards and Honors

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- 2023 **Undergraduate Academic Star** of College of Electronic and Information Engineering, Tongji University, 2023
- 2023 **Third Price**, China Collegiate Computing Contest - HCI Innovation Competition 2023  
(top 3%, 16 - 38 out of 1,388 entries) [P.2]
- 2022 **Third-Class Scholarship**, Tongji University Outstanding Student Scholarship, 2021 - 2022 Academic Year
- 2022 **“Award in Creativity”**, China Collegiate Computing Contest - HCI Innovation Competition 2022  
(top 4%, 39 - 41 out of 1,170 entries) [SP.2]
- 2021 **First-Class Scholarship**, Tongji University Outstanding Student Scholarship, 2020 - 2021 Academic Year

## Skills

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### English Skills

TOEFL 108/120 (Reading 30, Listening 29, Speaking 24, Writing 25)

GRE 327/340 (Verbal Reasoning 159/170, Quantitative Reasoning 168/170, Analytical Writing 4/6)

### Practical Skills

Programming Languages: Python, JavaScript/TypeScript, HTML, C/C++, LaTeX

Libraries/Platforms (progressively learning): React, d3.js, PyTorch