Yuxuan Li

Yassellee | Yassellee.github.io | yuxuan-l20@mails.tsinghua.edu.cn | +86 13926513675

Education

Tsinghua University, Department of Computer Science and Technology 2020.9 - 2024.7(Expected)

Publications and Preprints (*Indicating equal contribution)

- *Say Your Reason: Extract Contextual Rules In Situ for Context-aware Service Recommendation*
  Yuxuan Li, Jiahui Li, Lihang Pan, Chun Yu, Yuanchun Shi Submitted to CHI 2024
- *A Human-Computer Collaborative Tool for Training a Single Large Language Model Agent into a Network through Few Examples*
  Lihang Pan*, **Yuxuan Li***, Chun Yu, Yuanchun Shi Submitted to CHI 2024
- *Mirror, Mirror on the Wall: How Machine-Generated User Profiles Influence News Consumption Patterns and Beyond*
  Yuxuan Li*, Mingduo Zhao*, Coye Cheshire Submitted to CHI 2024

Selected Research Experience

Can Machine-Generated User Profiles Influence News Consumption Patterns and Beyond? 2023.5 - 2023.9

Advised by Prof. Coye Cheshire, University of California, Berkeley

– Adopted an empirical methodology using a custom-designed Google News experimental platform, with data procured from Prolific
– Conducted linear regression analyses to evaluate the (heterogeneous) treatment effects across diverse user profile dimensions
– Identified significant correlations between specific user profile dimensions and news consumption behaviors, and proposed relevant policy implications

Can Language Models Be Used in Mobile Context-Aware Recommender System? 2022.10 - 2023.7

Advised by Prof. Chun Yu, University of Washington - Tsinghua University, Access Computing Summer Program

– Formulated and developed algorithms leveraging language models to accurately extract contextual attributes from users' single-sentence explanations and build rules for mobile context-aware recommender systems
– Adapted the algorithmic framework for the design and development of the SayRea system, prioritizing in-situ contextual rule creation to minimize cognitive load
– Conducted a 10-day field study; results underscored the efficiency and accuracy of the devised algorithms in formulating contextual rules and recommending services

How to Collaboratively Design a Multi-LLM-Agent Network Easily? 2023.2 - 2023.8

Advised by Prof. Chun Yu and Prof. Yuanchun Shi, Tsinghua University

– Developed and implemented algorithms to facilitate the evolution of a single LLM agent into a multi-agent network under human supervision using a limited set of examples
– Built the EasyLAN system leveraging the aforementioned algorithms, designed to aid users in collaboratively creating multi-agent networks
– Conducted extensive user studies across diverse scenarios; findings demonstrated a significant enhancement in collaborative network design capabilities via EasyLAN

To What Extent can Large Language Models Replace Human Workers? 2023.3 - 2023.7

Advised by Prof. John Canny, University of California, Berkeley

– Investigated the extent of automation potential through large language models across various occupations and explored the underlying factors responsible for both anticipated and unexpected outcomes

How to Use Generative AI to Persuade People? 2023.3 - Present

Advised by Prof. John Canny and Prof. Ganesh Iyer, University of California, Berkeley

– Conducted a comprehensive comparative study using Qualtrics to investigate the treatment effects of various generative AI-related persuasion strategies, with an emphasis on addressing political polarization
– Plan to submit findings to *Nature*

What Will Happen If a Large Language Model Makes All Decisions for a Social Media Account? 2023.8 - Present

Advised by Prof. Coye Cheshire, University of California, Berkeley

– Employed LLM to simulate synthetic entities mirroring the behaviors of actual Facebook users and investigated on their potential influence on the perceptions and behaviors of users in real Facebook environment
– Plan to conduct a two-week online experiment to further assess aforementioned effects

Are Advertisements Better When Automatically and Interactively Generated Specially for Each Customer? 2023.7 - Present

Advised by Prof. Jeremy Z Yang, Harvard University

– Implemented the InteractAds system for enhanced customer engagement and tailored advertisement generation
– Plan to conduct a validation study to ascertain the efficacy of the personalized advertisements produced

How to Correctly Attribute Conversions to Advertisement Campaigns for Each Customer? 2023.7 - Present

Advised by Prof. Jeremy Z Yang, Harvard University

– Implemented a transformer model for time series forecasting utilizing Criteo's attribution dataset.
– Plan to integrate targeted maximum likelihood estimation with the transformer architecture to enhance conversion attribution.

Work Experience

- **Chief Engine Developer** Talegine (start-up), 2023.6 - Present

Academic Services

- **Reviewer, CHI 2024** 2023.9 - Present
- **Teaching Assistant, Student Research Training on HCI** Tsinghua University, 2022.12 - 2023.7

Awards and Honors

- **Academic Excellence Scholarship** Tsinghua University, 2023 and 2022
- **Sport Excellence Scholarship** Tsinghua University, 2021
- **Freshman Scholarship** Tsinghua University, 2020
- **Top 10 in National Semi-final** Jittor National Artificial Intelligence Competition, 2022

Skills

- **Programming Languages:** Python, Java, C++, Rust, System Verilog
- **Deep Learning:** PyTorch, Jittor
- **English:** Toefl 115 (R:30, L:29, S:26, W:30)