Meng Chen

Curriculum Vitae

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18290 Dunn Rd, South Bend, IN 46637

RESEARCH INTERESTS

Human-Computer Interaction (HCI), Human-AI Interaction, Human-centered AI, Creativity Support Tools

EDUCATION

The University of Texas at Austin — Austin, TX

Ph.D. in Computer Science — 2024-Present

Department of Computer Science, College of Natural Science

Advisor: Prof. Amy Pavel

University of Notre Dame — Notre Dame, IN

B.S. in Computer Science; Philosophy — 2024

Department of Computer Science and Engineering, College of Engineering

Advisor: Prof. Toby Jia-jun Li

PUBLICATIONS

* Indicates equal contribution

[C.2] **Luminate: Structured Generation and Exploration of Design Space with Large Language Models for Human-AI Co-Creation**

Sangho Suh*, **Meng Chen***, Bryan Min, Toby Jia-Jun Li, and Haijun Xia

Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2024)

[C.1] **A Bottom-Up End-User Intelligent Assistant Approach to Empower Gig Workers against AI Inequality**

Toby Jia-Jun Li, Yuwen Lu, Jaylexia Clark, **Meng Chen**, Victor Cox, Meng Jiang, Yang Yang, Tamara Kay, Danielle Wood, and Jay Brockman

Proceedings of the 1st Symposium on Human-Computer Interaction for Work (CHI WORK 2022)

[W.2] **CodeGRITS: A Research Toolkit for Developer Behavior and Eye Tracking in IDE**

Ningzhi Tang*, Junwen An*, **Meng Chen**, Aakash Bansal, Yu Huang, Collin McMillan, and Toby Jia-Jun Li

46th International Conference on Software Engineering Companion (ICSE-Companion 2024)

[W.1] **An Empirical Study of Developer Behaviors for Validating and Repairing AI-Generated Code**

Ningzhi Tang*, **Meng Chen***, Zheng Ning, Aakash Bansal, Yu Huang, Collin McMillan, and Toby Jia-Jun Li

13th Annual Workshop at the Intersection of PL and HCI (PLATEAU 2023)

RESEARCH EXPERIENCES

SaNDwich Lab, University of Notre Dame — Notre Dame, IN

Undergraduate Research Assistant — 2021-2024

Advisor: Prof. Toby Jia-Jun Li

Bridging Inequality in Digitally Mediated Gig Work

- Proposed a bottom-up approach using AI-enabled work planning tools and a network of intelligent assistants to empower gig workers and bridge AI inequality on privately owned platforms. [C.1]
- Developed an Android data collector app (CREPE) that utilizes graph query to extract data from mobile devices.

Characterizing and Modeling Programmer Behavior Through Eye Tracking

- Leveraged Tobii eye tracker to characterize and study programmer behavior in software engineering tasks.

Creativity Lab, UC San Diego Design Lab La Jolla, CA

Visiting Researcher 2023

Advisor: Prof. Haijun Xia

- Proposed a new interaction framework for human-AI collaboration in creative tasks that allow users to explore a space of possible responses, rather than giving a single data point in response to user input.
- Developed Luminate, a novel interactive system that demonstrates this idea by facilitating the process of exploring the LLM outputs and enabling spatial exploration.
- Led the user study of 14 demonstrating that enabling dimensional exploration of LLM output space facilitates divergent thinking and the understanding of the design space.
- Published a co-first-authored paper in CHI2024. [C.2]

FELLOWSHIP, SCHOLARSHIP & GRANTS

ACM UIST Student Travel Grant 2023

DaVinci Multidisciplinary Grant *($4,500)* 2023

Meruelo Family Summer Research Funding *($3,500)* 2023

Berthiaume Precision Medicine Fellowship *($5,600)* 2022

Stamps Scholarship *(Full tuition-and-fee + $12,000)* 2020-2024

Notre Dame Greater China Scholarship 2020

HONORS & AWARDS

Second Place *($2,000)*, *Hesburgh Hackathon* 2024

Best Visualization Award & Best Insight Award *($1,000*2)*, *American Statistical Association Data Fest* 2022, 2023

Tau Beta Pi National Engineering Honor Society 2022

Gold Award, *International Genetically Engineered Machine Competition* 2019

Dean's Honor List, *University of Notre Dame* 2020-2024

TEACHING

University of Notre Dame

Teaching Assistant, *CSE 30151: Theory of Computing* Fall 2023

INVITED TALK

Structured Generation and Exploration of Design Space with LLMs for Human-AI Co-Creation

Notre Dame NL+ Seminar

Notre Dame, IN. Nov. 27, 2023

SERVICE & OUTREACH

Academic Service

Reviewer ACM CHI(LBW) '23 '24

University of Notre Dame

Vice President, *Data Science Club of Notre Dame*

President, *Philosophy Club of Notre Dame*

Director of Resources, *University of Notre Dame International Student Advisory Board*

SKILLS

Programming	C, C++, Java, Python, HTML/CSS/JavaScript, TypeScript, Unix Shell and others
UI/UX	Interaction Design, Data Analysis, Participatory Design, Semi-structured Interview
Tools	Figma, Android Studio, PyTorch, React, Flask, Arduino
Artistic Skills	Photography, Procreate, Sketching, Watercolor
Languages	English, Mandarin Chinese