

ZHENG NING

Ph.D. Student, University of Notre Dame, Notre Dame, USA

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RESEARCH INTEREST

Human-computer Interaction, Human-AI Interaction, Multi-Modal Interaction, Accessibility and GenAI.

EDUCATION

University of Notre Dame

09/2021 - Present

Ph.D. of Computer Science

Notre Dame, USA

- Advisor: *Toby Jia-Jun Li*

University of Electronic Science & Technology of China (UESTC)

09/2016 - 06/2020

Bachelor of Electrical and Electronic Engineering

Chengdu, China

- Joint education program with University of Glasgow (UoG), UK
- Graduated with First-Class honor degree from UoG

INDUSTRIAL EXPERIENCE

Microsoft Research

05/2024 (3 months)

Host: *Nathalie Riche and Nicolai Marquardt*

Redmond, WA

Implemented a research prototype to investigate how people might use generative AI to improve future workflows, focusing on scenarios where users interact with data in diverse formats and modalities (e.g., documents, charts, images, etc.). Conducted a study to explore the efficacy, usability, and potential of the new interaction paradigm across various use cases, including both individual and collaborative scenarios on one or multiple devices (The work has led to a first-author submission to CHI 2025).

Adobe Research

05/2023 (5 months)

Host: *Dingzeyu Li, Valentina Shin, Mackenzie Leake, and Mira Dontcheva*

Seattle, WA

[User research] Conducted a formative study with 9 video and audio podcast creators, targeting their preferences on adding effects to podcast episodes, and identified key challenges they faced during the video editing process.

[System building] Led the design and development of an interactive system using GenAI to facilitate the assembly and production process of video editing.

[Productization] Designed and implemented AI agents in Adobe Premiere Pro (Pr) to realize the research idea in the first phase. Collaborated with Adobe Pr and user research teams. Led the development of a Minimum Viable Product (MVP) in Pr and initiated the new feature launch process.

SELECTED PUBLICATIONS

- [Developer Behaviors in Validating and Repairing LLM-Generated Code Using IDE and Eye Tracking](#)
Ningzhi Tang*, Meng Chen*, **Zheng Ning**, Aakash Bansal, Yu Huang, Collin McMillan, and Toby Li
2024 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC'24)
- [PodReels: Human-AI Co-Creation of Video Podcast Teasers](#) [📺 Video]
Sitong Wang, **Zheng Ning**, Anh Truong, Mira Dontcheva, Dingzeyu Li, and Lydia B. Chilton
Proceedings of the 2024 ACM Designing Interactive Systems Conference (DIS'24)

- **MIMOSA: Human-AI Co-Creation of Computational Spatial Audio Effects on Videos** [Project]
Zheng Ning*, Zheng Zhang*, Jerrick Ban, Kaiwen Jiang, Ruohong Gan, Yapeng Tian, and Toby Jia-Jun Li
Proceedings of the 15th Conference on Creativity and Cognition (C&C'24)
- **SPICA: Interactive Video Content Exploration through Augmented Audio Descriptions for Blind or Low-Vision Viewers** [Project]
Zheng Ning, Brianna L. Wimer, Kaiwen Jiang, Keyi Chen, Jerrick Ban, Yapeng Tian, Yuhang Zhao and Toby Li
In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI'24)
- **PEANUT: A Human-AI Collaborative Tool for Annotating Audio-Visual Data**
Zheng Zhang*, **Zheng Ning***, Chenliang Xu, Yapeng Tian and Toby Li
In Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology 2023 (UIST'23)
- **Interactive Text-to-SQL Generation via Editable Step-by-Step Explanations**
Yuan Tian, Zheng Zhang, **Zheng Ning**, Toby Jia-Jun Li, Jonathan K. Kummerfeld, Tianyi Zhang
The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP'23)
- **An Empirical Study of Model Errors & User Error Discovery and Repair Strategies in Natural Language Database Queries**
Zheng Ning*, Zheng Zhang*, Tianyi Sun, Tian Yuan, Tianyi Zhang, and Toby Jia-Jun Li
The 26th International Conference on Intelligent User Interfaces (IUI'23)

MEDIA COVERAGE

Interactive AI Tool Delivers Immersive Video Content to Blind and Low-Vision Viewers

NVIDIA Technical Blog; Generative AI / LLMs; Aug 12, 2024

GRANTS & HONORS

Graduate Student Professional Development Awards, University of Notre Dame	2023
Gary Marsden Travel Awards, SIGCHI	2023
NVIDIA Academic Hardware Grant (\$4,650 in equipment)	2022
Outstanding final year project of Glasgow College, UESTC (Top 10%)	2020
Outstanding Student Scholarship (Top 10%), UESTC	2017 - 2019

SKILLS

Program Languages:	Typescript, React, Python, Pytorch, SQL
Softwares:	Figma, Premiere Pro, PhotoShop, Tableau, SPSS
UX Skills:	Qualitative Research, Quantitative Research, Experiment Design
Languages:	English – Fluent, Chinese (Mandarin) – Native

COMMUNITY SERVICE

Reviewer	CHI 2024-2025
Reviewer	UIST 2023-2025
Reviewer	CSCW 2024