

Hongtao Hao

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EDUCATION

University of Wisconsin-Madison

PhD in Computer Sciences

Madison, WI

June 2026 (Expected)

EXPERIENCES

Robert Bosch LLC

Research Intern

June 2023 – Aug. 2023

Sunnyvale, CA

- Developed innovative LLM-powered solutions for corporate data analysis
- Built a full-stack application to enable engineers to interact with LLMs, streamlining data analysis and improving user workflows
- Integrated Langchain and OpenAI API to implement automatic response generation and evaluation
- Led to the publication of *Can LLMs Infer Domain Knowledge from Code Exemplars? A Preliminary Study*

YY Lab

Data Visualization Research Assistant

Aug. 2020 – May 2021

Bloomington, IN

- Collaborated on dynamic Covid-19 trend visualizations, showcasing real-time data insights for a global audience
- Redesigned the data pipeline and website architecture to enhance usability and visualization accuracy
- Implemented interactive features (e.g., delay and playback parameters) to enhance user engagement with data visualizations
- Project ended up among the *TOP 10 Most Liked notebooks on Observable in 2020*

SELECTED PUBLICATIONS

- Guo, J., Mohanty, V., **Hao, H.**, Gou, L., & Ren, L. (2024, March). Can LLMs Infer Domain Knowledge from Code Exemplars? A Preliminary Study. In *Companion Proceedings of the 29th International Conference on Intelligent User Interfaces* (pp. 95-100).
- **Hao, H.**, Cui, Y., Wang, Z., & Kim, Y. S. (2022). Thirty-two years of IEEE VIS: Authors, fields of study and citations. *IEEE Transactions on Visualization and Computer Graphics*, 29(1), 1016-1025.
- Hatfield, H. R., **Hao, H.**, Klein, M., Zhang, J., Fu, Y., Kim, J., ... & Ahn, S. J. (2024). Addressing Whiteness in communication scholar composition and collaboration across seven decades of ICA journals (1951–2022). *Journal of Communication*.
- Guo, J., Mohanty, V., Piazzentin Ono, J. H., **Hao, H.**, Gou, L., & Ren, L. (2024, May). Investigating Interaction Modes and User Agency in Human-LLM Collaboration for Domain-Specific Data Analysis. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems* (pp. 1-9).

SELECTED PROJECTS

Introduction to Event-Based Model (EBM) | *ML for health*

- Explained step by step how EBM help model disease progression

Modeling & Visualizing American Time Usage Survey (ATUS) | *ML & Data Visualization*

- Predict people's time usage with a neural network implemented in TensorFlow.js

ICA Conference Dataset | *Data Science + Full Stack*

- Scraped and cleaned scholarly data; Developed an API and interface

SKILLS

Programming Languages: Python, JavaScript, R, Julia, SQL

Web Development: React.js, HTML/CSS, FastAPI, MongoDB

Machine Learning & Data: TensorFlow, NumPy, Pandas, D3.js, scikit-learn, Bayesian Modeling

Cloud & Systems: GCP, Azure