# Miles Zhou

Ph.D. Student, School of Data Science
University of Virginia
1919 Ivy Rd, Charlottesville, VA 22903
Email: miles.zhou@virginia.edu
Google Scholar · GitHub · LinkedIn

## Research Interests

Interactive Chain-of-Thought · Multimodal Alignment · Fairness & Bias in AI · Explainable AI · Human-Centered Design

## Education

University of Virginia, Charlottesville, VA
*Ph.D. in Data Science — Expected 2026*
Advisors: Prof. Chirag Agarwal and Prof. Tom Hartvigsen

## Research Overview

I design interactive alternatives to static chain-of-thought explanations to help users verify, debug, and learn from model reasoning. My broader goal is to improve the reliability and interpretability of LLM reasoning through human-centered interface design and multimodal evaluation frameworks.

## Publications & Preprints

**• Improving Human Verification of LLM Reasoning through Interactive Explanation Interfaces**
Zhou, Nguyen. et al. Under review (2026).
PDF · Code · Demo

**• Disparities in LLM Reasoning Accuracy and Explanations: A Case Study on African American English**
Zhou, Wan. et al. Preprint (2025).
PDF · Code

**• SegPrompt: Using Segmentation Map as a Better Prompt to Finetune Deep Models for Kidney Stone Classification**
Zhu, Zhou. et al. MIDL 2023.
PDF

## Teaching Experience

- Data Ethics — Teaching Assistant, Fall 2025
- Statistical Machine Learning (Ph.D. Level) — Teaching Assistant, Spring 2025
- Big Data Systems (Master's Level) — Teaching Assistant, Fall 2024
- Intro to Machine Learning (Undergraduate) — Teaching Assistant, Spring 2024

- Intro to Programming for Data Science (Undergraduate) — Teaching Assistant, Fall 2023

## Ongoing Projects

**Text-In App-Out: Designing Human-Out-of-the-Loop Software Development** — Developing dual-LLM agent frameworks that can autonomously generate and improve full-stack web applications.

## Professional Activities

• Reviewer, academic workshops and conferences in NLP and HCI
• Research collaborations across HCI, NLP, and Explainable AI
• Mentorship of undergraduate data science students

## News

• Aug 2025 — Paper 'Disparities in LLM Accuracy and Reasoning: A Case Study on African American English' accepted at COLM 2025 Workshop.
• Apr 2023 — Paper 'SegPrompt' accepted at MIDL 2023.

## Personal

Certified Personal Trainer · Tennis Enthusiast