ZEYU (STEVEN) HE

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EDUCATION

Pennsylvania State University, University Park August 2022 - August 2026 (anticipated)
Third-year Ph.D. Candidate,
Advisor: Dr. Ting-hao (Kenneth) Huang

University of California, Irvine September 2016 - June 2020
B.S. Computer Science and Engineering
B.S. Civil Engineering
GPA: 3.74/4.0

RESEARCH INTEREST

I am deeply passionate about the fields of **Natural Language Processing (NLP)** and **Human-Computer Interaction (HCI)**. My research involves collaborating with online crowd workers to evaluate their performance in comparison to Large Language Models.

PUBLICATIONS

- Wenqian Ye, Luyang Jiang, Eric Xie, Guangtao Zheng, Yunsheng Ma, Xu Cao, Dongliang Guo, Daiqing Qi, **Zeyu He**, Yijun Tian, Megan Coffee, Zhe Zeng, Sheng Li, Ting-Hao 'Kenneth' Huang, Ziran Wang, James M. Rehg, Henry Kautz, Aidong Zhang *The Clever Hans Mirage: A Comprehensive Survey on Spurious Correlations in Machine Learning* (Under Review), arXiv.
- **Zeyu He**, Saniya Naphade, Ting-Hao K. Huang. *Prompting in the Dark: Assessing Human Performance in Prompt Engineering for Data Labeling When Gold Labels Are Absent* (CHI 2025)
- **Zeyu He**. *Human Involvements in Data Annotation in the Era of Large Language Models* (HCOMP DC 2024)
- Ho Yin Ng, **Zeyu He**, Ting-Hao K. Huang. *What Color Scheme is More Effective in Assisting Readers to Locate Information in a Color-Coded Article?* (VIS 2024)
- Shih-Hong Huang, Ya-Fang Lin, **Zeyu He**, Chieh-Yang Huang, Ting-Hao K. Huang. *How Does Conversation Length Impact User's Satisfaction? A Case Study of Length-Controlled Conversations with LLM-Powered Chatbots* (CHI LBW 2024)
- **Zeyu He**, Chieh-Yang Hunag, Chien-Kuang (Cornelia) Ding, Shaurya Rohatgi, Ting-Hao (Kenneth) Huang. *If in a Crowdsourced Data Annotation Pipeline, a GPT-4* (CHI 2024)
- Jakob Hederich, Shreya Ghosh, **Zeyu He**, Prasenjit Mitra. *Understanding the Night-Sky? Developing AI-Enabled System for Exploring Night-Light Usage Patterns* (IJCAI 2023)
- Lyuyang Hu, Omkar Pathak, **Zeyu He**, Hunkyu Lee, Mina Bedwany, Jace Mica, Peter J Burke. *"CloudStation:" A Cloud-Based Ground Control Station for Drones* In IEEE Journal on Miniaturization for Air and Space Systems 2.1 (2020): 36-42.

WORKING EXPERIENCE

Research Scientist Internship Aug 2025 - Nov 2025
Megagon Labs *Mountain View, CA*

- Designed an interactive agent planning system that presents tasks to users as structured plans, enabling better understanding and oversight.
- Advanced human–AI collaboration by creating new interaction methods that make complex multi-agent planning more transparent and controllable.

Applied Scientist Internship – Bedrock May 2025 - Aug 2025
Amazon *Santa Clara, CA*

- Investigating methods for simulating human judgment through rich observational signals.
- Designing full-stack application to capture cognitive and behavioral data for alignment of agentic AI systems.
- Contributing to research on human-in-the-loop evaluation and individual-level modeling.

Software Development Engineer – Amazon Music Feb 2022 - Aug 2022
Amazon *Irvine, CA*

- Agile software development to design and implement massively scalable Amazon Music service.
- Use of object-oriented programming languages, web frameworks, and libraries.
- DevOps tools and practices including infrastructure as code, version control, CICD, automated testing, and service monitoring, etc.

Software Engineer Aug 2020 - Feb 2022
Personable *Fountain Valley, CA*

- Researched and designed scalable apps for image processing, data extraction, and data management.
- Tested troubleshooting methods and documented resolutions in the knowledge base; gathered and managed information on integration issues/vulnerabilities to contribute to daily development plan meetings.
- Conducted QA for monthly software releases based on an agile life cycle.

TEACHING EXPERIENCE

Research Assistantship Jan 2024 - Present
Pennsylvania State University, University Park *State College, PA*

Teaching Assistantship Aug 2022 - Dec 2023
Pennsylvania State University, University Park *State College, PA*

- IST 554: Networking Management
- DS 220: Data Management for Data Science
- DS 300: Privacy in Data Science

Academic Tutor (Remote) Sep 2020 - Dec 2021
Gravitee Tutor Alliance *Guangzhou, China*

- Tutored 4 students in subjects relevant to computer science: data structure, AI, and machine learning.
- Evaluated students' learning styles and personalized teaching approaches for optimal learning experiences.

RESEARCH AND PROJECTS

Senior Design Project: CloudStation Oct 2019 - March 2020
Electronic Engineering and Computer Science Department, UC, Irvine *Irvine, CA*

- Used Scrum to design a real-time, cloud-based station web app for hundreds of drones.
- Made full-stack development on the Django framework, Channels, Redis, AWS RDS, and Bootstrap that can display the location of the connected drones and drone information on Mapbox and provide users with the command box and result box to interact with the connected drones.

Picard (Patient Initiated Controlled Analgesic Remote Dispenser) Oct 2018 - June 2020
Engineering Technology and Application Design at Calit2, UC, Irvine *Irvine, CA*

- Designed a medical system to ensure prescription opioid drugs were consumed accurately and safely by patients and to record drug effectiveness on patients' pain levels.
- Implemented Wi-Fi module and MySQL protocol to make connections between the ESP32 board and server in real-time, allowing the ESP32 board to display up-to-date information and update data on request.

PROFESSIONAL ACTIVITY

Conference Paper Reviewer: CHI LBW 2024, Learning @ Scale 2024, Pluralistic Alignment Workshop @ NeurIPS 2024 , ACM TIST 2024

Conference Area Chair: CHI LBW 2025

AWARD AND HONORS

UC Irvine Dean's Honor List (11 times) 2016-2020

SKILLS

Programming Language: Python, C++, Kotlin, Java, C, Verilog, Visual Basic, Matlab
Tools and Frameworks: TensorFlow, PyTorch, scikit-learn, SatScan