Jihyun (Janice) Ahn

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EDUCATION

Ph.D., Pennsylvania State University, State College, Pennsylvania

August 2023 – Present

• Major: Computer Science (Computer Science and Engineering)

• Research Area: Natural Language Processing (NLP)

B.S., University of Wisconsin, Madison, Wisconsin

September 2021 – May 2023

• Major: Computer Science (College of Letters)

• GPA: 3.77/4.00

B.E., Arizona State University, Tempe, Arizona

August 2019 - April 2021

• Major: Computer Science (Ira A. Fulton Schools of Engineering)

• Award: New American University Scholarship UG 2019 – 2021

• GPA: 3.98/4.00

RESEARCH FOCUS

Natural Language Processing (NLP) | Large Language Models (LLMs) | Generative AI | AI4Science | Mathematical Word Problems | Multilingual | Bias & Hallucinations of LLMs

PUBLICATIONS

2025

• **Jihyun Janice Ahn**, Wenpeng Yin. <u>Prompt-Reverse Inconsistency: LLM Self-Inconsistency Beyond Generative Randomness and Prompt Paraphrasing. *COLM 2025*.</u>

2024:

- **Jihyun Janice Ahn**, Ryo Kamoi, Lu Cheng, Rui Zhang, Wenpeng Yin. <u>Direct-Inverse Prompting: Analyzing LLMs' Discriminative Capacity in Self-Improving Generation</u>. *arXiv Preprint 2024*.
- Philip Wootaek Shin, Jihyun Janice Ahn, Wenpeng Yin, Jack Sampson, Vijaykrishnan Narayanan. <u>Can Prompt Modifiers Control Bias? A Comparative Analysis of Text-to-Image Generative Models.</u> *IJCAI 2024 AI Governance Workshop*.
- Ryo Kamoi, Sarkar Snigdha Sarathi Das, Renze Lou, Jihyun Janice Ahn, Yilun Zhao, Xiaoxin Lu, Nan Zhang, Yusen Zhang, Ranran Haoran Zhang, Sujeeth Reddy Vummanthala, Salika Dave, Shaobo Qin, Arman Cohan, Wenpeng Yin, Rui Zhang. Evaluating LLMs at Detecting Errors in LLM Responses.
- Renze Lou, Hanzi Xu, Sijia Wang, Jiangshu Du, Ryo Kamoi, Xiaoxin Lu, Jian Xie, Yuxuan Sun, Yusen Zhang, **Jihyun Janice Ahn**, Hongchao Fang, Zhuoyang Zou, Wenchao Ma, Xi Li, Kai Zhang, Congying Xia, Lifu Huang, Wenpeng Yin. <u>AAAR-1.0</u>: <u>Assessing AI's Potential to Assist Research</u>, *arXiv Preprint 2024*.

2023:

- Janice Ahn, RISHU VERMA, Renze Lou, Di Liu, Rui Zhang, Wenpeng Yin. <u>Large Language Models for Mathematical Reasoning: Progresses and Challenges.</u> *EACL 2024 Student Research Workshop*.
- Renze Lou, Kai Zhang, Jian Xie, Yuxuan Sun, **Janice Ahn**, Hanzi Xu, Yu Su, Wenpeng Yin. <u>MUFFIN: Curating Multi-Faceted Instructions for Improving Instruction-Following.</u> *ICLR 2024*.

Research Assistant, Pennsylvania State University, State College, PA

August 2023 - Present

- Department: College of Engineering
- Supervised by Prof. Wenpeng Yin.
- Conducting intensive research on LLMs for Math Word Problems, aiming to enable more LLMs to effectively and successfully solve mathematical problems

Data Science Intern, Data Science Team, Samsung Austin Semiconductor, Austin, TX May, 2025 - August 2025

- Developed an automated RAG (Retrieval-Augmented Generation) testing pipeline by constructing a benchmark database, integrating evaluation endpoints, and implementing custom performance metrics.
- Enhanced RAG system performance by selecting and deploying a production-grade LLM, informed by systematic evaluation using the designed testing pipeline.

Workshop co-organizer, IJCAI2024, Jeju South Korea

March, 2024 - July 2024

- Assisted a professor in creating a website and organizing paper invitations for the workshop.
- Collaborated with conference officials to ensure the event adhered to the schedule, facilitated participant Q&A sessions, supported presentations, and coordinated paper presentations and the awarding of the best paper accolade.

Research Intern, ADAS Verification Technology Team, Suresoft, South Korea

May, 2022 – July, 2022

- Collected sensor data of ADAS vehicles including Lidar, IMU, GPS, and Camera, and created various testing scenarios and error determination filters for ADAS
- Applied Python and C# to create filters that find the point where ADAS caused the judgment error during driving and left a mark on the timeline
- Presented summarized contents of various papers related to ADAS and ADAS testing every three weeks to team members to help widen their knowledge