

# Jihyung Park

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## EDUCATION

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<b>The University of Texas at Austin</b> M.S. in Computer Science, GPA: 3.80/4.00	Austin, TX 2024–Current
<b>The University of Texas at Dallas</b> B.S. in Computer Science, GPA: 3.94/4.00	Dallas, TX 2020–2024

## EXPERIENCE

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<b>Urban Information Lab</b> Graduate Research Assistant   Supervisor: Junfeng Jiao	UT Austin Jan 2025–Current
<ul style="list-style-type: none"><li>– GAUGE: Detecting Implicit Harmfulness During Conversation</li><li>– Conducted a research to measure the risk level of a conversation by observing changes in the internal probability of a predefined lexicon.</li><li>– SafeMate: Emergency Response and Preparedness Assistant Chatbot</li><li>– Collaborated with the City of Austin, designed the pipeline for a chatbot and developed a website to assist with preparing for and responding to crisis situations.</li><li>– Web-SUMO: Traffic Information Digital Twin</li><li>– Designed a program that collect traffic data for regional information, apply it to a simulation environment, and provide road modifications and optimal system design using reinforcement learning.</li></ul>	

<b>Human Language Technology Research Institute</b> Undergraduate Research Assistant   Supervisor: Vincent Ng	UT Dallas Dec 2023–Jan 2025
<ul style="list-style-type: none"><li>– MemeInterpret: Towards an All-in-One Dataset for Meme Understanding</li><li>– Created a meme corpus containing meme captions together with corresponding surface messages and relevant background knowledge. Strategically built upon the Facebook Hateful Memes dataset.</li></ul>	

## INDUSTRY EXPERIENCE

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<b>Turing</b> LLM Trainer	Palo Alto, CA (Remote) Sep 2025–Dec 2025
<ul style="list-style-type: none"><li>– Sequential Tool Usage Inducted Dataset Generation and Validation</li><li>– Using Frontier LLM, we sequentially employed both our own internal database tools and external tools to minimize hallucinations and higher success rate by generate a dataset capable of executing complex user instructions through efficient tool utilization, and performed verification procedures on it.</li></ul>	

## PUBLICATIONS (PEER-REVIEWED)

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1. S. H. Lewis, J. Jiao, Y. Xu, **Jihyung Park**, and C. Phillips, “A Decentralized Digital Twin via Crowdsourced Sensing and Browser-Based Edge Computation”, in *AAAI, The Second Workshop on AI for Urban Planning (AI4UP)* 2026.
2. Y. Xu, **Jihyung Park**, and J. Jiao, “LLM-Powered Digital Twins for Interactive Urban Mobility Simulation: Integrating SUMO with AI Agents”, in *NeurIPS workshop, UrbanAI: Harnessing Artificial Intelligence for Smart Cities (Urbanai)* 2025.

3. J. Park, K. P. N. Nguyen, **Jihyung Park**, M. Kim, J. Lee, J. W. Choi, K. Ganta, P. A. Kasu, R. Sarakinti, S. Vipperla, S. Sathanapalli, N. Vaghani, and V. Ng, “MemeInterpret: Towards an All-in-one Dataset for Meme Understanding”, in *Findings of the Association for Computational Linguistics (EMNLP) 2025*.

## PUBLICATIONS (OTHER)

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1. J. Jiao\*, **Jihyung Park\***, Y. Xu, K. Sussman, and L. Atkinson, “Safemate: A Modular Rag-based Agent for Context-aware Emergency Guidance”, Preprint in arxiv 2025.
2. **Jihyung Park**, S. Afroogh, and J. Jiao, “Do You Feel Comfortable? Detecting Hidden Conversational Escalation in AI Chatbots for Children”, Manuscript in Preparation. Target Venue: ACL 2026 (ARR Jan).
3. **Jihyung Park\*** and M. Huang\*, “Bk-link: Background Knowledge as a Driver of Implicit Meaning Inference”, Manuscript in Preparation. Target Venue: ACL 2026 (ARR Jan).
4. **Jihyung Park**, “Mirror-Shot: Factual Consistency Evaluation via Dynamic Context Mirroring”, Manuscript in Preparation. Target Venue: ACL 2026 (ARR Jan).

## SKILLS

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- **Programming:** Python, Shall, JavaScript, R
- **Libraries/Frameworks:** PyTorch, LangChain, React, FastAPI,
- **Other:** SQL (PostgreSQL, MySQL), L<sup>A</sup>T<sub>E</sub>X, MS Office, MATLAB, Docker, Git, Firebase

## PROJECTS

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- LLM in Data Pre-processing (UT Austin, Database System, 2024)
- Researched on determine whether utilizing structured output via a 1-bit LLM enables more effective handling of outliers, missing rows, typos, and other issues during data pre-processing for structured datasets.
- Code Switch ASR (UT Austin, Spoken Language Technology, 2024)
- Conducted an experiment to enhance the accuracy of speech recognition when two or more languages coexist simultaneously.
- Ready2Interview (Hacktx, 2024)
- During hackathon, Integrated RAG for user PDFs (Resume, CV, etc) with internet search RAG functionality to create a system for user interview practice and real-time feedback via an ASR model and LLM pipeline
- Motion Feedback Exercise Assistant (UT Dallas, Software Engineering, 2024)
- Developed a program that assists in analyzing and organizing the user's exercise history and posture by analyzing body angles and movements through camera detection of each body part via the MediaPipe framework.
- Youtube Trending Prediction (UT Dallas, Undergraduate Research, 2023)
- Designed a model that embeds thumbnail data via a variational autoencoder and trains a BERT model alongside other metadata to predict whether a specific video might be classified as trending.

## SCHOLARSHIPS AND AWARDS

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- AKPC Scholarship 2024
- UT Dallas Dean's List 2021–2024
- Newsong Church Scholarship for Academic Excellence 2021