Jeongsik Park

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Educations University of Southern California

Master of Science, Computer Science

(Expected) May 2026 Los Angeles, CA

University of Texas at Dallas

Bachelor of Science, Computer Science – GPA: 3.94/4.0

May 2024 Richardson, TX

Publications

MemeIntent: Benchmarking Intent Description Generation for Memes [Paper]

<u>Jeongsik Park</u>*, Khoi P. N. Nguyen*, Terrence Li, Suyesh Shrestha, Megan Kim Vu, Jerry Yining Wang, and Vincent Ng.

*denotes equal contributions.

Published in Proceedings of the 25th Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGdial 2024).

MemeInterpret: Towards an All-in-one Dataset for Meme Understanding

Khoi P. N. Nguyen*, <u>Jeongsik Park</u>*, Jihyung Park, Minseok Kim, Jaeheon Lee, Jae Won Choi, Kalyani Ganta, Phalgun Ashrit Kasu, Rohan Sarakinti, Sanjana Vipperla, Sai Sathanapalli, Nishan Vaghani, and Vincent Ng.

*denotes equal contributions.

Submitted to ACL Rolling Review October 2024 Cycle.

Active Learning for Hate Speech Detection

 $\frac{\text{Jeongsik Park}}{Manuscript Prepared}$, and Vincent Ng

Research Experiences Human Language Technology Research Institute

Research Intern (Advisor: Dr. Vincent Ng)

Aug. 2022 - Present Richardson, TX

• Benchmark Dataset for Multimodal Task

- Developed benchmark dataset for computational meme interpretation, collaborating with 6 researchers.
- Built Large Language Model (LLM)/Vision LLM (VLLM) pipeline that integrates background knowledge retrieval, leading to 43% performance improvement on semantic similarity over non-retrieval systems.

• Dataset for Multimodal Tasks

- Led team of 13 to create dataset for computational meme interpretation and hateful meme detection.
- Generated synthetic data using LLM and developed React annotation interface, improving annotation experience by cutting annotation time by 70%.
- Built LLM/VLLM and encoder-based pipeline, improving interpretation performance by 14% semantic similarity over baseline and detection by 4.7% AUROC score compared to state-of-the-art model.

• Hate Speech Detection

- Conducted independent research on hate speech detection on social media.
- Analyzed topic-dependency issue in existing hate speech datasets, and addressed it with active-learning using encoder model, achieving superior performance over state-of-the-art models with only 10% of labeling cost.

Mentoring Experiences

Human Language Technology Research Institute

 $K ext{-}12$ Student Research Mentor, and Undergraduate Student Research Mentor

Jun. 2023 - Oct. 2023 Richardson, TX

- Mentored and led 4 high school juniors in a research program, resulting in co-authorship of a paper.
- Addressed 5 students' machine learning questions in the NSF Research Experience for Undergrads.

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Leadership Experiences IntelliChoice

Sep. 2022 - Present Branch Manager, Math Tutor, and Machine Learning Engineer Plano, TX & Los Angeles, CA

• Opened and managed 2 new branches, providing math tutoring for disadvantaged children every Saturday for 2 hours. Recruited and managed 40+ tutors and 100+ students.

- Taught mathematics to 10+ K-12 students (focusing AP Linear Algebra, Calculus, and Statistics).
- Incorporating RAG-based chatbot on website, interacting with students and suggesting lectures to 1,200+ students.

University of Texas at Dallas

Sep. 2023 - Dec. 2023

Project Coordinator

Richardson, TX

• Devised and graded 2-phase machine learning project (in CS4375.HON; Intro. to ML, Honors course).

28th Basic Training Center, Republic of Korea Army

Jul. 2019 - Feb. 2021

Drill Assistant Instructor

Gyeonggi-do, Republic of Korea

• Trained 2,000+ recruits barrack life, teamwork, and military training, received commendation for outstanding leadership.

Presentations

MemeIntent: Benchmarking Intent Description Generation for Memes. SIGdial, Sep. 2024 [Poster]

Hateful Meme Detection. Center for Machine Learning and Language Processing Lab Mixer, University of Texas at Dallas, Nov. 2023 [Oral]

Exploiting Background Knowledge and Implicit Messages for Hateful Meme Detection. Summer Platform for Undergrad Research Symposium, University of Texas at Dallas, Jul. 2023 [Oral and Poster

ComfortABLE: From Ordering to Payment, Comfortably at Your Table. International Student Creativity Challenge, International Association for Convergence Science & Technology (IACST), Nov. 2018 [Poster]

Honors and Awards

2024 Jonsson School Undergraduate Research Award, University of Texas at Dallas (UTD) - \$500	
2023 Gil Lee Undergraduate Scholarship, UTD	- \$2,000
2023 Alumni Endowed Scholarship, UTD	- \$1,400
2023 Amelia A. Lundell Scholarship, UTD	- \$1,000
2023 Undergraduate Research Apprenticeship Program, UTD	- \$4,500
2022, 2023 Dean's List , UTD	- Honor
2022-2024 International Study Scholarship, Kyungpook National University (KNU)	- \$10,000
2020 Certificate of Commendation, Republic of Korea Army - Ex	cellence Award
2019 Consumer Electronics Show (CES) 2019, KNU	- Travel Grant
2018, 2021 Interdisciplinary Education Scholarship, KNU	- \$3,200
2018 StartUp Project Contest, KNU	- 2nd place
2018 International Student Creativity Challenge, IACST - Excellence Award &	k Travel Grant
2018 StartUp Idea Contest, KNU	- 1st place
2018 Prime Outstanding Scholarship, KNU	- \$1,0000
2018 Hackathon SkillUp Software Contest, KNU	- 1st place
2018 Silicon Valley Training Progrm, KNU	- Travel Grant
2018-2023 National Science and Engineering Scholarship, Korea Student Aid Foundation - \$18,500	

Technical Skills

Programming Language - Python, SQL, C, C++, Java, Shell

Library & Framework - PyTorch, TensorFlow, Pandas, NumPy, Scikit-Learn, Matplotlib, NLTK, IATFX DevOps - Linux, CI/CD, Git, YAML, CONDA, Docker, AWS, Flask, FastAPI