

Jeongsik Park

LA, CA 90010 | 945-217-6306 | lucas.jeongsik.park@gmail.com | linkedin.com/in/jeongsik-park | webpage

Education

University of Southern California	Master of Science, Computer Science (AI Specialization)	May 2026
University of Texas at Dallas	Bachelor of Science, Computer Science (GPA: 3.94)	May 2024

Technical Skills

AI Engineering	Python, PyTorch, LangGraph, LangChain, LLMs, VLMs, RAG, Digital Human
Cloud / Infra.	AWS, FastAPI, Flask, Docker, Kubernetes, Helm, Terraform, Prometheus, Grafana
AI Research	Academic Reviewer (AAAI '26, ICASSP '25), L ^A T _E X

Publications

- [1] (EMNLP 2025 Findings) **MemeInterpret: Towards An All-in-One Dataset for Meme Understanding** [paper]
J. Park, *et al* | Instruction-Tuning (LLaVA, T5, CLIP), Quantization (QLoRA), LLM-as-a-Judge, Qualitative Analysis
- [2] (SIGdial 2024) **MemeIntent: Benchmarking Intent Description Generation for Memes** [paper]
J. Park, *et al* | LLM/VLM, Evaluation (n-gram, embedding, human), Synthetic-data Generation, Data-Annotation
- [3] (under review) **Active Learning for Hate Speech Detection**
J. Park, *et al* | Active-learning, Data-mining, Rule-based ML, Fine-tuning (BERTweet)

Work Experience

General Electric – GE HealthCare	May 2025 – Present
AI Engineer Intern	Bellevue, WA

- **Autonomous X-ray** (AI Engineering)
 - Orchestrated dual LangGraph workflows sharing Redis state, coordinating LLM-only for patient check-in and LLM/VLM agents for examination, and pose detection (RSNA showcase [link]).
 - Implemented LangGraph state-aware feedback system integrating LLM and VLM agents to generate contextual pose-correction guidance, and developed heuristic detection algorithm leveraging ROUGE-L evaluation to refine instruction quality, reducing error rate by 80%.
 - Built LLM-as-a-Judge pipeline with structured JSON parsing and asynchronous batched inference, enabling iterative self-evaluation and 12× faster latency.
- **Autonomous X-ray** (AI Infrastructure)
 - Automated Digital Human (DH) deployment on AWS using Terraform, resolving encryption/tagging blockers for compliance and enabling six developers to test independently pre-on-prem rollout.
 - Built React-based observability dashboard using Flask API to stream Redis data for real-time backend monitoring.
 - Reconfigured Helm deployments in NVIDIA UCS to validate full microservices on a single GPU and migrated TTS from ElevenLabs to on-prem Riva via Helm and ACE updates, boosting efficiency and security while eliminating API costs.
 - Collaborated with UX team to tune Audio-to-Face animations for improved lip-sync accuracy and realism.
 - Simulated network throttling to validate stability and identify bottlenecks before live deployment.
- **Automatic Report Generation** (AI Research)
 - Conducted comparative radiology report experiments using VLMs (Opus-4, GPT-4o, MedGemma) via AWS Bedrock/Azure OpenAI and evaluated outputs with RAG-as-a-Judge to guide large-scale fine-tuning.

Human Language Technology Research Institute	August 2022 – May 2025
NLP Undergraduate Researcher (Advisor: Dr. Vincent Ng)	Richardson, TX

- **NLP, Multimodal** (AI Research)
 - Led creation of first unified meme-understanding dataset with a novel annotation pipeline, achieving SOTA performance across interpretation, explanation, and categorization tasks.
 - Introduced intent description generation task incorporating external knowledge, improving LLM/VLM-based meme interpretation by 43% via in-context learning.
 - Proposed active learning strategy for hate speech detection, mitigating topic dependency while reducing annotation cost by 90% and outperforming SOTA baselines.
- **Selected Activities** (Research Mentor, ML Project Coordinator)
 - Supervised four high school students on ML projects (CLIP, BLIP, OpenCV), resulting in a co-authored publication.
 - Mentored five NSF REU undergraduates on LLM and deep-learning projects (CNN/LSTM, TFR-BERT).
 - Designed Course project (Intro to ML, Honors) on data augmentation and QA tasks.