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 Eng. Python, PyTorch, LangGraph, LangChain, LLMs, VLMs, RAG, Digital Human
AI Infra. AWS, FastAPI, Flask, Docker, Kubernetes, Helm, Terraform, Prometheus, Grafana
Research Academic Reviewer (AAAI '26, ICASSP '25), LaTeX

Publications

[1] (**EMNLP** 2025 Findings) **MemeInterpret: Towards An All-in-One Dataset for Meme Understanding** [link]
J. Park, *et al* | Instruction-Tuning (LLaVA, T5, CLIP), Quantization (LoRA), LLM-as-a-Judge, Qualitative Analysis

[2] (**SIGdial** 2024) **MemeIntent: Benchmarking Intent Description Generation for Memes** [link]
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/Co-op
Bellevue, WA

- **Autonomous X-ray (AI Engineering)**
  - Orchestrated dual LangGraph workflows sharing Redis state, coordinating LLM-only and LLM/VLM agents for patient check-in, examination, and pose detection (RSNA showcase [link]).
  - Implemented state-aware feedback integrating LLM and VLM agents in LangGraph to generate contextual guidance for patient pose correction.
  - Built LLM-as-a-Judge pipeline with structured JSON parsing (PydanticOutputParser) and asynchronous batched inference, enabling iterative self-evaluation and 12× faster latency.
  - Refined patient instruction quality via heuristic ROUGE-L evaluation, cutting error rate by 80%.
- **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 LangGraph state data for real-time backend monitoring during demos.
  - Reconfigured Helm deployments in NVIDIA UCS to validate full DH 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 parameters for improved lip-sync accuracy and realism.
  - Simulated 25 Mbps and 10ms network constraints 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 Research Intern (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**
  - 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.