Jiahui (Karen) Chen

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https://jiahuikchen.github.io/

Education

UNIVERSITY OF TEXAS AUSTIN
PhD Candidate in AI, advised by Professor Amy Zhang – August 2023 to Present
NSF CSGrad4US Fellowship, Electrical and Computer Engineering Department Fellowship

UNIVERSITY OF UTAH
B.S. in Computer Science, Minors in Math and Cognitive Science – May 2020
Graduated Cum Laude. Recipient of the President's Scholarship, Regents' Scholarship, and Bingham Alumni Scholarship

Technical Experience

RESEARCH SCIENTIST INTERN – META AI RESEARCH (FAIR)
June – Nov 2024
– Developed a text-to-image (T2I) model evaluation method that uses multi-modal large language models (MLLMs) to generate image prompts and judge generated images.
– MLLMs match existing T2I benchmark model rankings with 80x less prompts and achieve higher correlations with human judgments, using our method.
– First-author publication under review at CVPR 2025.

SOFTWARE ENGINEER – META / FACEBOOK
December 2022 to August 2023: Gen AI Emu Stickers Model
– Trained and evaluated image generation diffusion models used for AI Generated Stickers in Messenger and WhatsApp.
– Developed data pipelines and metrics for evaluating sticker generation models via human annotations of AI-generated images.
– Implemented automated prompt engineering of users' sticker searches, enabling sticker generation quality to reach production standards.

July 2022 to November 2022: Bayesian Modeling Team
– Applied Bayesian statistical modeling and inference, through an in-house probabilistic programming language, to Meta's A/B testing infrastructure.
– Implemented Bayesian optional stopping to end A/B tests early when they were predicted to result in no improvement or regression in metrics, saving revenue and resources.

June 2020 to July 2022: Probabilistic Neural Networks Team
– Researched methods for increasing the robustness and trustworthiness of machine learning systems by ascribing uncertainty measurements to models.
– Developed a PyTorch-based library of these uncertainty methods for deep learning.
– Main developer for the Benchmarking sub-library, an experimentation platform that allows users to simulate uncertainty in data, add uncertainty methods to models, and run uncertainty-aware experiments on simulated and SOTA benchmark datasets.
– Applied UQM to anti-scraping and computer vision models in Meta products.

SOFTWARE ENGINEERING INTERN – INSTAGRAM (META)
May 2019 to August 2019
Created computer vision models that detect guideline-violating media and auto-machine learning thresholding infrastructure that decreased the amount of non-violating media deleted off Instagram.