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

Research project exploring how to leverage multi-modal large language models as evaluator agents for image generation models. First-author publication under review at CVPR 2025.

SOFTWARE ENGINEER - META / FACEBOOK

December 2022 to July 2023: Generative AI Expressive Media Team

- Creating and evaluating text to image models (Dalle2, Imagen, Latent Diffusion) for use cases across Meta products.
- Developing pipelines and metrics for evaluating generative models via human annotations of AI-generated images.
- Exploring prompt engineering and expansions, to bridge the gap between user searches (abstract, short) and usual AI-generated image prompts (descriptive and specific, imaginative).

July 2022 to November 2022: Bayesian Modeling Team

- Applying Bayesian statistical modeling and inference, through an <u>in-house probabilistic</u> <u>programming language</u>, to Meta's A/B testing infrastructure.
- Implementing Bayesian optional stopping to end experiments early when they are 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.