

## 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

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## TECHNICAL EXPERIENCE

### VISITING RESEARCHER – META SUPERINTELLIGENCE LABS

May – Dec 2025

- Post-trained multimodal generative models to unify text and image generation in a single inference call, enabling the model to automatically transition between reasoning about an image and generating it.
- Designed a weakness-targeted dataset and performed reward function analysis, leading to significant text-to-image performance improvements over the base model. First author publication under review.

### RESEARCH SCIENTIST INTERN – META FUNDAMENTAL AI RESEARCH (FAIR)

June – Nov 2024

- Developed a text-to-image (T2I) model evaluation method using multimodal language models to generate image prompts and judge generated images, fully automating evaluation.
- Our approach matches existing T2I benchmark model rankings with 80x less prompts and achieves higher correlations with human judgments. First author publication under review.

### SOFTWARE ENGINEER – META / FACEBOOK

December 2022 to August 2023: Gen AI 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 uncertainty quantification methods (UQM) for deep learning models and helped develop a library integrating UQM into PyTorch..
  - Main developer for the Benchmarking sub-library, an experimentation platform for simulation of uncertainty in data and evaluating uncertainty estimates in model predictions.
  - Applied UQM to bot detection user-action models and computer vision models in Meta products.
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