
EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN

Ph.D. Electrical and Computer Engineering

2023 to Present

Advisor: Dr. Amy Zhang

Research Areas: multimodal generative models, unified text-image generation, diffusion models, text-to-image model evaluation

UNIVERSITY OF UTAH

B.S. Computer Science, Minors in Math and Cognitive Science

2016 to 2020

Graduated Cum Laude, Recipient of the President's Scholarship, Regents' Scholarship

RESEARCH & PROFESSIONAL EXPERIENCE

VISITING RESEARCHER – META AI RESEARCH (FAIR)

May 2025 to Present

Post-trained multimodal 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.

RESEARCH SCIENTIST INTERN – META AI RESEARCH (FAIR)

Jun – Nov 2024

Developed a text-to-image (T2I) model evaluation method leveraging multimodal language models as evaluator agents that generate image prompts and judge generated images.

Our method's T2I model rankings match existing benchmarks' rankings while using 80x fewer prompts and achieves higher correlations with human judgments.

SOFTWARE ENGINEER – META

Gen AI: AI Generated Stickers

Dec 2022 - Aug 2023

Trained and evaluated image generation diffusion models used for AI-Generated Stickers in Messenger and WhatsApp.

Implemented automated prompt engineering to address distribution shift between users' sticker searches and image captions in training datasets, enabling sticker generation quality to reach production standards.

Bayesian Modeling at Meta Research

Jul – Nov 2022

Bayesian modeling, with our own probabilistic programming language.

Implemented Bayesian optional stopping in Meta's A/B tests, to preemptively stop experiments that would result in metric regression, saving revenue and resources.

Probabilistic Neural Networks at Meta Research

Jun 2020 – Jul 2022

Benchmarked and applied uncertainty quantification methods for deep learning in ranking, anti-scraping, and computer vision models in Meta products. Focused on failure prevention and signaling in out-of-distribution and adversarial data settings.

PUBLICATIONS

Philippe Hansen-Estruch*, **Jiahui Chen**, Vivek Ramanujan, Orr Zohar, Yan Ping, Animesh Sinha, Markos Georgopoulos, Edgar Schoenfeld, Ji Hou, Felix Juefei-Xu, Sriram Vishwanath, Ali Thabet. *“ViTok-v2: Scaling Native Resolution Auto-Encoders to 5 Billion Parameters”*. ICML 2026

Jiahui Chen*, Philippe Hansen-Estruch, Xiaochuang Han, Yushi Hu, Emily Dinan, Amita Kamath, Michal Drozdal, Reyhane Askari-Hemmat, Luke Zettlemoyer, Marjan Ghazvininejad. *“Unified Text-Image Generation with Weakness-Targeted Post-Training”*. Under Review, TMLR

Jiahui Chen*, Candace Ross, Reyhane Askari-Hemmat, Koustuv Sinha, Melissa Hall, Michal Drozdal, Adriana Romero-Soriano. *“Multi-Modal Language Models as Text-to-Image Model Evaluators”*. Under Review, TMLR

Jiahui Chen*, Amy Zhang, Adriana Romero-Soriano. *“Augmented Conditioning Is Enough For Effective Training Image Generation”*. ICLR 2025 Workshop SynthData

Animesh Sinha*, Bo Sun*, Anmol Kalia*, Arantxa Casanova*, **Jiahui Chen**, et al. *“Text-to-Sticker: Style Tailoring Latent Diffusion Models for Human Expression”*. ECCV 2024

AWARDS & HONORS

National Science Foundation Computer and Information Science and Engineering Graduate Fellowship (CSGrad4US), Awarded 2022

Cockrell School of Engineering Multi-Year Fellowship, Awarded 2023

VOLUNTEERING & LEADERSHIP

Coding Course TA – Code Tenderloin

2020 to 2022 – Teaching Assistant for free introductory JavaScript courses provided by a non-profit that serves the Tenderloin community of San Francisco.

Section Leader – Code In Place

2021 – Teaching team member for a 6-week online programming course offered by Stanford University. Over 12,000 students from around the world participated.