

EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN

Ph.D. Electrical and Computer Engineering

2023 to Present

Advisor: Dr. Amy Zhang

Research Areas: deep generative models, uncertainty quantification in deep learning

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

RESEARCH SCIENTIST INTERN – META Fundamental AI Research (FAIR)

Society and Responsible AI

June 2024 to Present

Exploring evaluation of text-to-image models using multi-modal large language models.

SOFTWARE ENGINEER – META

Gen AI: AI Generated Stickers

Dec 2022 - July 2023

Developed pipelines and metrics for evaluating text-to-image generative models used for AI Generated Stickers in Messenger and WhatsApp.

Implemented prompt engineering that enabled image generation quality to reach production standards.

Bayesian Modeling at Meta Research

July 2022 - 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

June 2020 - July 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.

NETWORK TRAFFIC CLASSIFICATION FOR NetSecOps (NSF #1642158) 2018 - 2021

First author on a similarity-based, probabilistic network traffic classification paper.

SLATE: SERVICE LAYERS AT THE EDGE (NSF #1724821)

2017 - 2018

Research assistant and developer for an experimental high performance computing platform that hosts research computing applications on distributed compute resources.

PUBLICATIONS

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

Hang Wang*, Sahar Karami, **Jiahui Chen**, et al. *"Training Set Cleansing of Backdoor Poisoning By Self-supervised Representation Learning"*. IEEE ICASSP 2023

Li Chen, **Karen Chen**, Purvi Goel, Ilknur Kaynar Kabul. *"Augment Your Deterministic Model with Monte Carlo Dropout to Combat Noisy Labels"*. Poster in WiML Workshop 2021

Jiahui Chen*, Joe Breen, Jeff M. Phillips, Jacobus Van der Merwe. *"Practical and*

*Configurable Network Traffic Classification Using Probabilistic Machine Learning”.
Springer Cluster Computing Volume 25 Issue 4*

Joe Breen, Lincoln Bryant,, **Jiahui Chen**, et al. “*Managing privilege and Access on Federated Edge Platforms*”. *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (Learning)*, PEARC’19

Joe Breen, Lincoln Bryant, **Jiahui Chen**, et al. “*Developing Edge Services for Federated Infrastructure Using MiniSLATE*”. *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (Learning)*, PEARC ’19

Joe Breen, Lincoln Bryant, Gabriele Carcassi, **Jiahui Chen**, et al. “*Building the SLATE Platform*”. In *Proceedings of the Practice and Experience on Advanced Research Computing*, PEARC ’18

AWARDS & HONORS

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

Cockrell School of Engineering Multi-Year Fellowship, 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.

Undergraduate Student Advisory Committee – School of Computing, University of Utah
2018 to 2020 - Faculty review and student event organization.

Student Ambassador – College of Engineering, University of Utah

November 2016 to May 2020 - Tours, outreach, and presentations leader.

AmeriCorps Service Term

December 2016 to August 2017 - 300 hour service term for a community health nonprofit.