

Matthew Tang

Website: mtang.me | Phone: (217) 974-0742 | Email: mtang317@gmail.com

PROFESSIONAL EXPERIENCE

TikTok — Machine Learning Engineer

Aug 2024 – Present

San Jose, CA

- Developing social recommendation algorithms to build a network of high quality social relations

Nextdoor — Machine Learning Engineering Intern

May 2023 – Aug 2023

San Francisco, CA

- Designed experiments to use large language models as a recommendation system reranker
- Fine-tuned GPT models to predict engagement on user feeds
- Fine-tuned GPT models to rerank feed posts to optimize engagement
- Created offline evaluator to replace need for online testing of existing reranking models

Revery.ai — Research Intern

Oct 2022 – May 2023

Remote

- Experimented with generative image models to generate realistic faces for human fashion models
- Conducted experiments using **StyleGAN**, **pix2pix**, **Stable Diffusion**, and **DALL-E**

TikTok — Software Development Intern

May 2022 – Aug 2022

Mountain View, CA

- Experimented on **transfer learning** from classification models to pointwise ranking models
- Set up data ingestion pipeline from 10TB data warehouse to train and evaluate deep learning models
- Designed A/B experiments to evaluate models on live usage data

Data Mining Group — Research Assistant

Jan 2022 – Mar 2022

University of Illinois Urbana-Champaign

- Implemented dual hypergraph transformation to aggregate edge and node data for graph neural networks
- Ideated improvements by reviewing papers on graph convolutions for recommender systems

PERSONAL PROJECTS & AWARDS

William Lowell Putnam Mathematical Competition

Dec 2022

- Placed within the top 500 contestants across universities nationwide

Nextdoor Hackathon

July 2023

- Engineered model for selectively removing offensive content from images using **YOLO** and **DALL-E 2**

NCSA Hackathon

April 2022

- Adapted U-Net architecture with **3D convolution** and **transformers** to predict on temporal-spatial data
- Parallelized training over multiple clusters and GPUs using **Horovod** to speed up training by 4x

EDUCATION

University of Illinois Urbana-Champaign

GPA: 4.0

Masters of Computer Science

Aug 2022 – May 2024

B.S. in Computer Science

Aug 2020 – May 2024

TECHNICAL SKILLS

- Python, SQL, JavaScript, Java, C++, C, RegEx, Unix and Linux systems and Git version control
- PyTorch, Tensorflow, CUDA, scikit-learn, OpenCV, Stable Diffusion, and OpenAI GPT
- Fluent in English and Mandarin Chinese