

Matthew Tang

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PROFESSIONAL EXPERIENCE

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 experiment** to evaluate models on live usage data

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

- Relevant coursework: *Deep Learning Theory, Artificial Intelligence, Data Mining, Machine Learning, Deep Learning in Computer Vision, Deep Generative and Dynamic Models, Transfer Learning, Data Structures, Systems Programming, Introduction to Algorithms, Natural Language Processing*

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