

Matthew Tang

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PROFESSIONAL EXPERIENCE

TikTok – Software Development Engineer Intern

May 2022– August 2022 Mountain View, CA

- Developed deep learning models to predict performance of sponsored ad content.
- Setup data ingestion pipeline from 10TB data warehouse to model training and evaluation.
- Research transfer learning from binary classification models to pointwise ranking/regression models.
- Design A/B experiment to evaluate models on live usage data.

Data Mining Group — Assistant

January 2022 – March 2022 University of Illinois Urbana-Champaign

- Assisted a graduate researcher by reading papers on graph convolution for recommender systems.
- Implemented dual hypergraph transformation to aggregate edge and node data for graph neural networks.

Illinois Rocstar — Web Development Intern

May 2021 – August 2021 Champaign, IL

- Developed a RESTful API to facilitate the access of scientific computational tools to a broad community of users via cloud computing.
- Designed, implemented, and deployed backend architecture (API endpoints, CI/CD Pipeline, cloud infrastructure) using Django, OpenAPI, GitLab, Docker, and AWS.

PERSONAL PROJECTS & LEADERSHIP EXPERIENCE

NCSA Hackathon — Hackathon

April 2022

- Trained model to predict climate-relevant properties of atmospheric aerosols using 200GB of data
- Adapted U-Net architecture with 3D convolution and transformer to predict on temporal-spatial data to less than 15% relative error
- Parallelized training over multiple clusters and GPUs using Horovod to speed up training by 4x

HackIllinois — Hackathon

March 2022

- Designed a model to create animated mouth movements matching real mouth movements of the user.
- Created a data pipeline by using a pre-trained facial landmark detection model to label data.

Projects Committee in ACM@UIUC – Committee Chair and Project Leader

August 2020 – May 2021

- Mentored 3 teams of 8 people to collaboratively develop their personal software project ideas.
- Led Covid Q&A Project, using natural language processing to provide research based answers about COVID.

EDUCATION

University of Illinois Urbana-Champaign

GPA: 4.0

Masters of Computer Science, August 2022 – May 2024

B.S. in Computer Science, August 2020 – May 2023

- Relevant coursework: Data Structures, Systems Programming, Introduction to Algorithms, Artificial Intelligence, Introduction to Data Mining, Machine Learning, Deep Learning in Computer Vision

TECHNICAL SKILLS

Programming Languages & OS

- Proficient in Python, JavaScript, Java, C++, C, and RegEx.
- Proficient in Unix and Linux systems and Git version control.
- Proficient in PyTorch and Tensorflow.