

MINGXUAN LI

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EDUCATION

University of California, San Diego
MS, Electrical and Computer Science

San Diego, CA
Sep. 2023 – Present

Beihang University

BE, Electrical and Information Technology; GPA: 3.4/4, WAM: 84/100, Ranking: 60/270

Beijing, China
Sep. 2019 – Jun. 2023

Research EXPERIENCE

Beihang University

Research Intern

Beijing, China
Sep. 2020 – Sep. 2021

- **GNN:** Learned the basic knowledge of Graph Neural Network, which plays an important role in modeling our problem
- **Complex Network:** We analyze the transferring model of road traffic based on the data of taxi numbers running in cities. And we aim to figure out how the congestion in the city of Shanghai spread along roads.
- **Pytorch:** Learning how to use torch package in python and coordinate coding work among team members with git tools and jetbrains suite.

Pennsylvania State University

Research Intern advised by Prof. Lu Lin

Remote from Beijing, China

Sep. 2022 – May 2023

- **GNN distillation:** GNNs are usually too large to train in decent time, and thus distilling a condensed network with a similar performance compared to the original network.
- **Bias and Fairness:** The potential bias includes gender, age, race, which is sensitive to be linked with certain unpleasant issue under certain context. This is usually reflected in the data and the model we trained.
- **Cloud Service:** Using cloud service provided to train our model.

PROJECTS

Recommender System

- **What we did:** Analyzed the RateBeer dataset and designed customized methods for data preprocessing and feature engineering. The objective was to develop an efficient feature extraction pipeline to optimize the prediction of user preferences for specific types of beer. Conducted exploratory data analysis to gain an in-depth understanding of the dataset and reviewed relevant literature to incorporate recent developments. Focused on how review text impacts user and item ratings. Improved the MSE of the regressor by 80% through our feature extraction pipeline.

COURSES

CSE 257: Search and Optimization, Numerical Optimization, Stochastic and Classical Search, MDP and Reinforcement Learning, MCTS

ECE 271A and CSE250a: Machine learning algorithm, from Bayes rules, maximum likelihood to expectation-maximization algorithm.

CSE 256: NLP, built a transformer from scratch, finishing up the final project.

ECE 228 and ECE 285: Machine learning and deep learning applications, Computer Vision, completed two projects

SELECTED SKILLS

Languages: Golang, Python, C, Shell

Developer Tools: Git, Docker, JetBrains Suite, MATLAB