

HAOYANG LING

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EDUCATION

Master of Science in Information (Big Data Analytics Track)

University of Michigan, Ann Arbor

Apr 2024

Ann Arbor, MI

- Excelled in data analysis, data mining, and database applications coursework with GPA: 4.0/4.0.
- Acquainted with miniblog-like database web applications by Django, JavaScript, and Ajax.
- Unveiled research trends by word clouds of frequent n-grams in the CORD-19 dataset.

Bachelor of Science in Electrical and Computer Engineering

Shanghai Jiao Tong University

Aug 2023

Shanghai

- Excelled in calculus, data science, probability, and programming coursework with GPA: 3.9/4.0.
- Obtained high praise for instructing students in physics and circuit theory as Teaching Assistant.
- Received Yu Liming Scholarship, GIFT Scholarship, and Undergraduate A-level Scholarship.

PROJECT EXPERIENCE

Data Analyst / Yelp User Analysis

University of Michigan, Ann Arbor

Nov 2022 - Dec 2022

Ann Arbor, MI

- Optimized the calculation of user similarity by the Min-Hash algorithm with **Spark MLlib**.
- Advanced the baseline accuracy (Adamic-Adar index) of link prediction by 2.2x with GraphSage.

Big Data Analyst / Music Recommendation with Spark

Shanghai Jiao Tong University

Jul 2022 - Aug 2022

Shanghai

- Deployed Apache Drill and Spark with **Hadoop cluster** in Docker after three days of self-study.
- Compressed information in HDF5 files with a 2% ratio by **Apache Avro** for efficiency.
- Accelerated parallel breadth-first search with Spark 10x faster than that with MapReduce.

Research Assistant / Contrastive Learning on Graph Representation

Shanghai Jiao Tong University

Mar 2022 - Aug 2022

Shanghai

- Summarized the commonalities between computer vision and graph neural networks.
- Proposed random masking and attention mechanism in the graph augmentation.
- Surpassed baseline models in 5 out of 9 datasets by tuning the model in the ablation study.

Data Scientist / Housing Price Prediction in Illinois

Shanghai Jiao Tong University

Nov 2021 - Dec 2021

Shanghai

- Ranked top 5 out of 75 in the contest by adopting XGBoost and Random Forest after comparing various machine learning algorithms to analyze about 150k records of housing prices.

WORK EXPERIENCE

Consultant / User Experience Enhancement of BSP Assessment

Professional Consultation Services, Inc.

Sep 2022 — Dec 2022

Northville, MI

- Interviewed six participants and collected around 150 notes of raw data in the affinity wall.
- Streamlined the company workflow by delivering nine suggestions in the action-priority matrix.

Engineering Intern / Diesel Exhaust Emission

Shanghai Diesel Engine Co., Ltd.

Jan 2021 - Feb 2021

Shanghai

- Revamped data pipeline and automated visualization for exhaust emission analysis in Python.
- Collaborated with colleagues in coding and debugging, and provided insights obtained from data analysis at weekly meetings.

SKILLS

Data Analysis

Python, SQL, Hadoop, Spark

Machine Learning

Pytorch, Tensorflow, Sklearn

Tools and Languages

C/C++, Java, JavaScript, Linux, Django, Git, Vivado

Communication

English (Toefl 106), Chinese