Rui A. Wang

Chicago, IL • ruiwang493@gmail.com • ruiawang.github.io • linkedin.com/in/rui-wang-8073ba168

Diligent and experienced at implementing machine learning, deep learning and data science solutions to solve problems. Passionate about machine learning and innovative research/technology that improves the lives of people and business. Experienced in AI/ML tools (TensorFlow, PyTorch, Scikit-learn, LLMs/GPT, Yolo, Detectron2) with real-life data/use.

Education

University of Chicago *September 2023 - exp. 2024*

M.S. Computational and Applied Mathematics - Specialization: Machine Learning, Data Science

University of California, Los Angeles *October 2020 - March 2023*

B.S. Applied Mathematics / GPA: 3.87

Skills and Certificates

- Python - 5 years
  - **ML**: TensorFlow, PyTorch, Scikit-learn
  - Flask, Asyncio, Selenium, Discord.Py
  - Computer Vision, Object Detection
  - Natural Language Processing, Large Language Models
  - Reinforcement Learning
- SQL - 3 years
- R, Tableau - 1 year
- Languages: Java - 4 years, C++ - 2 years, Swift - 1 year
- MATLAB - 1 year
- Google Cloud Platform, AWS Sagemaker - 6 months
- Git, Docker - 1 year, Kubernetes - 3 months
- DeepLearning.AI TensorFlow Developer Professional Certificate
- Google Advanced Data Analytics Professional Certificate

Work, Research, and Project Experience

Graduate Researcher, CHAI Lab at UChicago *September 2023 - Present*

- Researcher with Dr. Chenhao Tan's Chicago Human + AI (CHAI) Lab researching the capability of LLaMA and other Language Models at analyzing and understanding language features on the LIWC-22 dataset.
- Implemented and tuned vision models such as CLIP and Vision Transformers to predict social factors of Google Street View images such as wealth, location, and cultural similarity.

Data Science Intern, Farmers Insurance Exchange *June 2022 - August 2022*

- Implemented and analyzed 12 classifier models using NLP techniques such as tokenization, embedding, sentiment analysis, and tf-idf to predict customer satisfaction and promoter likelihood from auto insurance claims.
- Engineered data processing pipeline for 750K-row large, feature-oriented datasets from production servers and MS SQL Server databases for model training/testing.

Research Intern, Harvey Mudd College *May 2019 - August 2019*

- Implemented an LSTM RNN utilizing a sliding window to predict human motion state off cell-phone accelerometer and gyroscope data; trained under a 1-million row dataset, with the supervision of Dr. Weiqing Gu.

Reinforcement Learning Wuziqi

- Trained and deployed an AI agent to play variations of the game Wuziqi entirely through reinforcement learning and self-play by implementing the AlphaZero Reinforcement Learning algorithm using Monte Carlo Tree Search.

Divvy Bikes Classifiers

- Built, tuned, and tested 9 classifiers, including Logistic Regression, Decision Trees, Random Forests, and Gradient Boosted models to predict membership status, trained on 6M rows of data with processing and feature-engineering.

OptionsBot

- Discord bot that visualizes options trading information using data from TDAmeritrade, Yahoo! Finance, and CBOE.