Yumian Cui

https://yumian-cui.github.io/

EDUCATION

University of Wisconsin Madison

Madison, WI

• Bachelor of Science, Data Science and Economics; GPA: 3.82

Sep. 2018 - Jun. 2022

Email: ycui53@wisc.edu

Minor: Computer Science

EXPERIENCE

UW-Madison Statistics Learning Center

Madison, WI

Stat 240 Introduction To Data Modeling I Peer Mentor

Sep 2021 - Present

- o Training: Attended the Statistics Learning Center Training and the UW-Madison Tutor Development Conference
- Mentoring: Helping students learn by guiding them through problem-solving process in online drop-in office hours

UW-Madison Department of Computer Science

Madison, WI

CS 220 Data Programming I Peer Mentor

Jan 2021 - Present

- Mentoring: Holding office hours to help student with lab/project/or troubleshoot general coding issues
- o Teaching: Leading lab section to go through lab code or assisting TA to address student inquiries
- \circ **Quiz Design**: Designing weekly quiz questions for course through collaboration in a team of 3

Wisconsin Science and Computing Emerging Research Stars (WISCERS)

Madison, WI

research fellow

Feb 2021 - Present

- Apply: Selected from over 90 applicants to participate in CS newly launched research mentorship program
- Research: Involved in mentoring activities and research projects with matched faculty Prof. Vivak Patel and graduate mentor Liam Johnston; researched about optimization of conventional backpropagation method to mitigate adjoint decay/explosion seen in recurrent neural network training through a trainable penalty on adjoints
- Results: (1) Wrote Design of Experiments (DOE) report periodically with text, graph, and tables that contained thoughts and findings (2) Tested the validity of method on a variety of synthetic or real-world datasets and provided coding support to network training and others

Jiangyun Intelligence Ltd.

Remote, China

machine learning intern

Feb 2021 - May 2021

• Duties: Applied computer vision algorithms on real-world industry datasets, including tasks like classification, semantic segmentation, and defect detection

UW-Madison Department of Economics

Madison, WI

LEAD@econ Mentor

Feb 2021 - May 2021

- Mentoring: Selected to support a freshman mentee by providing career/academic/life advice/resources
- Training: Engaged in monthly leadership training with over 50 students to grow personally and professionally

 EconEx Research and Data Analysis Extern

 Summer 2020
 - o Apply: Selected for independent research project performing data analysis of Covid-19 situation in New York
 - Training: Completed over 15 hours of training on data analysis tools (LinkedIn) and collaborated with the mentor
 - Results: Created data visualization using Python & Excel and presented findings of Covid impact on consumer & retail trends in NYC

PROJECTS

- Customer Churn prediction in Telecommunication industry: Developed algorithms for Telecommunication customer churn prediction based on labeled data from Kaggle via Python programming; Evaluated model performance (80.6% accuracy, 65.8% precision, 55.7% recall, 83.3% AUC score for LR) via GridSearch (K-fold cross validation) and selected top features influencing customer retention [added: later obtained 80.2% accuracy on first try with linear classification neural network algorithm]
- 2020 Data Challenge: Designed a machine learning model for heart failure prediction; Collaborated in a team of 2; Completed an analysis report and presented to professors at the end

Programming Skills

• Languages: Python, Java, R, SQL, LaTeX, HTML

Technologies: TensorFlow, PyTorch