Yumian Cui

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Education

University of Wisconsin Madison — Madison, WI
- *Bachelor of Science, Data Science and Economics; GPA: 3.82* — *Sep. 2018 – Jun. 2022*
  Minor: Computer Science

Experience

- **UW-Madison Statistics Learning Center** — Madison, WI
  Stat 240 Introduction To Data Modeling I Peer Mentor — *Sep 2021 - Present*
  - **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 students with labs/projects or troubleshoot general coding issues
  - **Teaching**: Leading lab section to go through lab code or assisting TA to address student inquiries
  - **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*
  - **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 with UW-Madison student Shaonan Wang; Completed an analysis report and presented to professors at the end

Programming Skills

- **Languages**: Python, Java, R, SQL, LaTeX, HTML **Technologies**: TensorFlow, PyTorch