Tanqiu Jiang

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EDUCATION

University of Rochester, Goergen Institute for Data Science, Rochester, NY
Master of Science in Data Science, **GPA: 3.86/4.00** **Expected December 2021**

Lehigh University, College of Engineering, Bethlehem, PA
Bachelor of Science in Computer Engineering, GPA**: 3.37/4.00** **Aug 2016 - May 2020**
Minor: Data Science

PUBLICATION

Tanqiu Jiang, Yi Li, Honghao Lin, Yisong Ruan, David P. Woodruff "Learning-Augmented Data Stream Algorithms", In 8th International Conference on Learning Representations, **ICLR 2020**, Addis Ababa, Ethiopia, April 26-30, 2020. [pdf]

Accepted (Poster Presentation)
Acceptance Rate: 26.5% (687/2594)

Jiang, Tanqiu, Sidhant K. Bendre, Hanjia Lyu, and Jiebo Luo. "From Static to Dynamic Prediction: Wildfire Risk Assessment Based on Multiple Environmental Factors." 2021 IEEE International Conference on Big Data (Big Data), 2021. [pdf]

Accepted
Oral Presentation on Dec 15, 2021 [video]

T. Jiang and Z. Xiong, "Rule-Based Approach to the Automatic Detection of Individual Tree Crowns in RGB Satellite Images" 2021 IEEE International Conference on Computer Science, Artificial Intelligence and Electronic Engineering (IEEE-CSAIEE), 2021, pp. 132-135. [pdf]

Accepted

Xu Wang, Tanqiu Jiang, Hengxing Cai II, "Human epithelial-2 cell image classification using deep unsupervised learning and gradient boosting trees," Proc. SPIE 11601, Medical Imaging 2021.[pdf]

Accepted

LANGUAGE AND COMPUTER SKILLS

Technical (software):

Python (Proficient), R(Proficient),
SQL (Familiar), Java (Familiar),
SAS (Basic), C/C++ (Basic), MATLAB (Basic)

Technical (hardware):

MIPS Assembly (Proficient), Arduino (Proficient),
Microcontroller (Familiar), Verilog (Familiar)

ML tools and libraries: TensorFlow, pytorch, LSTM, CNN

Language: Mandarin (Native), English (Fluent), Spanish (Basic)

COMPETITION

Kaggle: Google Landmark Retrieval 2020

- Extracted features from more than 1 million landmark photos of sizes 736×736.
- Used random crop and resize for data augmentation.
- Utilized RESNET200 and EfficientNetB6 to extract features. (cosine learning rate with warm up, ADAM optimizer)
- Used label smoothing and then concatenate the results from RESNET and EffieientNet to achieve the best result.

Silver medal
(Top 3%, 16th/541)

GRANT/SCHOLARSHIP

NSF Student Travel Grant (IEEE-Big Data):

Received in Dec 2021

30% Tuition Scholarship:

Aug 2020 – Dec 2021

PROJECTS

Databricks US homelessness analysis (sponsored by Databricks): **Sep 2021 – Dec 2021**

- Gathered data from different sources and scraped funding records online from the official website.
- Performed data exploratory analysis using SQL and Pyspark on the Databricks platform.
- Investigate the effect of policy on homelessness using Stratified Sharp-Null Test and Regression Discontinuity Design (RDD).

Automated Guitar tuner: **Sep 2019 – May 2020**

- Used an accelerometer on an Arduino board to measure the frequency of guitar strings.
- Connected a stepper motor to the Arduino board to adjust the tuning peg of the guitar.
- 3D printed a tuning peg fitter that can connect the motor to the guitar's tuning peg.
- Wrote MATLAB and c programs to dynamically measure and adjust the angles on the stepper motor.

EXPERIENCE

Teaching Assistant, *University of Rochester* **January 2021 – December 2021**

- Hold office hours averaging more than 2 hours a week to answer questions from students on python/Linux/SQL/Pyspark/R
- Helped to test and adjust the course materials on Databricks with Professor Lloyd Palum and Professor Brendan Mort
- Held review sessions to teach students on the course material
- Graded students' assignments and projects and provided feedbacks

Student Researcher, *Vista Lab, University of Rochester* **December 2020 - December 2021**

- Lead the research on California Wildfire Incidents analysis & prediction mentored by Prof. Jiebo Luo and Hanjia Lyu
- Integrated environmental factors to predict the risk of wildfire using Logistic Regression, SVM, Neuarl Network etc
- Used LSTM/RNN to perform time-series analysis on dynamic risk predictions
- Wrote a research paper together with Hanjia Lyu and published our work on IEEE International Conference on Big Data.

Student volunteer / Cohost, *IEEE Big Data 2021 conference* **December 2021**

- Cohosted the special session "S29: Contrastive Learning" with the session chair
- Made sure the speckers' presentations are on schedule and displayed properly

IT-Department Intern, *BASF, Nanjing, China* **Summer 2018**

- Performed low-level formatting on over 900 used computers and arranged an auction for sale
- Maintained the company's account system, especially in case of personnel change
- Acted as an translator during meetings with the German and Singapore branches