Tanqiu Jiang

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Education

Stony Brook University	Stony Brook, NY
Ph.D. in Computer Science	*Aug 2023 – Present*
Pennsylvania State University	State College, PA
Ph.D. in Informatics (transferred to Stony Brook)	*Aug 2022 – May 2023*
University of Rochester	Rochester, NY
Master of Science in Data Science	*Aug 2020 – Dec 2021*
Lehigh University	Bethlehem, PA
Bachelor of Science in Computer Engineering (Minor: Data Science)	*Aug 2016 – May 2020*

Works Under Review

Jiang, T., Wang, Z., Liang, J., Li, C., Wang, Y., & Wang, T. (2024). **RobustKV: Defending Large Language Models against Jailbreak Attacks via KV Eviction**. Submitted to **ICLR 2025**. [OpenReview].

Reviewer Scores: 8, 6, 6

Jiang, T., Li, C., Ma, F., & Wang, T. (2024). **RAPID: Retrieval Augmented Training of Differentially Private Diffusion Models**. [OpenReview].

Reviewer Scores: 8, 6, 5, 5

Publications

Jiang, T., Li, Y., Lin, H., Ruan, Y., & Woodruff, D. P. (2020). Learning-Augmented Data Stream Algorithms. In *8th International Conference on Learning Representations (ICLR 2020)*, Addis Ababa, Ethiopia. [pdf].

Jiang, T., Bendre, S. K., Lyu, H., & Luo, J. (2021). From Static to Dynamic Prediction: Wildfire Risk Assessment Based on Multiple Environmental Factors. *2021 IEEE International Conference on Big Data (IEEE-Big Data)*, [pdf].

Jiang, T. & Xiong, Z. (2021). 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)*, pp. 132-135. [pdf].

Wang, X., **Jiang, T.**, Cai, H. II. (2021). Human epithelial-2 cell image classification using deep unsupervised learning and gradient boosting trees. *Proc. SPIE 11601, Medical Imaging 2021*. [pdf].

Experience

Stony Brook University	Stony Brook, NY
Research Assistant	*Aug 2023 – Present*

- Conduct advanced research in computer science under the supervision of Dr. Ting Wang, focusing on enhancing the robustness and privacy of machine learning models.
- Lead and manage two ongoing research projects:
    * **RobustKV: Defending Large Language Models against Jailbreak Attacks via KV Eviction**
    * **RAPID: Retrieval Augmented Training of Differentially Private Diffusion Models**

- Coordinate with a multidisciplinary team to design experiments, analyze data, and draft research manuscripts for publication.
- Present research findings at internal seminars and collaborate with external researchers to refine methodologies and approaches.

Pennsylvania State University
State College, PA
Research Assistant
Aug 2022 – May 2023

- Lead a research project developing "Unlearnable Examples" aimed at minimizing the performance of contrastive learning models by introducing adversarial noise into training images.
- Attend and present in weekly individual and group meetings with Dr. Ting Wang, Dr. Dongwon Lee, and lab mates.

University of Rochester, Goergen Institute for Data Science
Rochester, NY
Teaching Assistant
Jan 2021 – Dec 2021

- Held office hours averaging over 2 hours weekly to assist students with Python, Linux, SQL, PySpark, and R.
- Collaborated with Professors Lloyd Palum and Brendan Mort to test and refine course materials on Databricks.
- Conducted review sessions to reinforce course material and prepare students for assessments.
- Graded assignments and projects, providing constructive feedback to students.

Vista Lab, University of Rochester
Rochester, NY
Student Researcher
Dec 2020 – Dec 2021

- Led a research project on analyzing and predicting California Wildfire Incidents under the mentorship of Prof. Jiebo Luo and Hanjia Lyu.
- Integrated multiple environmental factors to assess wildfire risk using Logistic Regression, SVM, Neural Networks, etc.
- Utilized LSTM/RNN for time-series analysis to perform dynamic risk predictions.
- Co-authored a research paper published in the IEEE International Conference on Big Data.

IEEE Big Data 2021 Conference
Rochester, NY
Student Volunteer / Cohost
Dec 2021

- Cohosted the special session "S29: Contrastive Learning" alongside the session chair.
- Ensured speakers' presentations adhered to the schedule and were displayed correctly.

COMPETITIONS

Kaggle: Google Landmark Retrieval 2020

- Extracted features from over 1 million landmark photos (736×736).
- Applied data augmentation techniques such as random cropping and resizing.
- Utilized RESNET200 and EfficientNetB6 for feature extraction, employing cosine learning rate with warm-up and Adam optimizer.
- Implemented label smoothing and concatenated results from RESNET and EfficientNet to achieve top performance.
- Awarded Silver Medal (Top 3%, 16th/541).

GRANTS AND SCHOLARSHIPS

Graham Endowed Fellowship ($4,000), Pennsylvania State University, Aug 2022

NSF Student Travel Grant ($500), IEEE-Big Data Conference, Dec 2021