SIFAN WU

University of Montreal, Montreal Institute for Learning Algorithms(Mila), Montreal, Canada
(+1)4389416908 ⋄ sifan.wu@umontreal.ca

INTRODUCTION

Sifan Wu is a Ph.D. student in her 3rd year at Université de Montréal, advised by Professor Bang Liu. She earned her Master's degree from Tsinghua University, one of the best universities in China. She has published multiple papers in top conferences such as NeurIPS and AAAI. Her research areas are multimodal large language models, ai4healthcare, and time series forecasting.

EDUCATION

Doctoral in Computer Science(GPA: 3.7/4.3)   **Jan 2022 - Jul 2025**
Department of Computer Science and Operations Research
University of Montreal, DIRO & MILA   *Montreal, Canada*
Master in Computer Technology(GPA: 3.2/4.0)   **Sep 2018 - Jul 2021**
Department of Information Science and Technology, Tsinghua University   *Beijing, China*
Bachelor in Communicating Engineering(Grade: 90.06/100)   **Sep 2014 - Jul 2018**
Department of Electronic Information System, Tongji University   *Shanghai, China*

EXPERIENCE

Autodesk AI Lab   May 2023 - Sep 2023
· Research on CAD Large Language Models.   *Research Intern*

Tencent Jarvis Lab   May 2021 - December 2021
· Research on Event Causality Identification.   *Research Intern*

Microsoft Bing   July 2020 - September 2020
· Research on livestreaming recommendation.   *Machine Learning Engineer Intern*

Tencent AI Lab   August 2019 - June 2020
· Research on Shenzhen load forecasting.   *Research Intern*

Google AI Machine Learning Winter Camp   January 2020
· Mini-project on temperature forecasting.   *Group leader*

PUBLICATIONS

CAD-LLM: Large Language Model for CAD Generation
S. Wu, A. Khasahmadi, M. Katz, et.al.   *NeurIPS 2023 Workshop*
· Establish a comprehensive pipeline to model CAD sketches by finetuning a pre-trained foundational language model.
· Introduce three novel evaluation metrics for CAD generative models: Entity Accuracy, Sketch Accuracy, and CAD F1 score.

Identify Event Causality with Knowledge and Analogy
S. Wu, R. Zhao, Y. Zheng, J. Pei, B. Liu   *AAAI 2023*
· Analogy memory information as experience to better identify the relationship between a new event pair.

· Document-level event causality identification on two benchmark datasets.

Adversarial Sparse Transformer for Time Series Forecasting
S. Wu, X. Xiao, Q. Ding, P. Zhao, Y. Wei, J. Huang   *NeurIPS 2020*

· A Generative Adversarial Encoder-Decoder framework to regularize the forecasting model.
· An effective time series forecasting model – Adversarial Sparse Transformer based on sparse Transformer and Generative Adversarial Networks.

Knowledge Refinery: Learning from Decoupled Label
Q. Ding, S. Wu, T. Dai, H. Sun, J. Guo, Z. Fu, S. Xia   *AAAI 2021*

· A novel neural network regularization method with proposed Residual Label.
· Improvement of 2.04% (Acc.) on CIFAR-100 datasets and 1.06% (Top-1 Acc.) on ImageNet datasets with only little increase of model paramters.

Multi-scale Hierarchical Gaussian Transformer for Stock Movement Prediction
Q. Ding*, S. Wu*, H. Sun, J. Guo, J.Guo   *IJCAI 2020*

· Using the feature of K-lines can help to improve the performance of stock movement.
· Hierarchical structure contributes to the archive of various terms patterns.

ConvDroid: Lightweight Neural Network based Andoird Malware Detection
S. Wu, X. Xi   *ICONIP 2019*

· A novel malware detection system based on extracted system call sequences.
· Lightweight CNN model improve the performance and time efficiency dealing with long sequences.

HONORS

Tsinghua University Outstanding Graduate of the department of Computer Science (2021)
Tongji University Scholarship for Outstanding Students, First Prize (2015 and 2016)
American Mathematical Contest In Modeling/ Interdisciplinary Contest In Modeling,Honor Prize(2016)

TALENTS

Language   Mandarin(native speaker), English(advanced), French(beginner)
Framework   PyTorch, Tensorflow