Xiangchi Yuan

CONTACT 756 West Peachtree Street NW, Coda

xyuan300@gatech.edu 1-7812907437

Atlanta, GA 30308

Homepage: xiangchi-yuan.github.io

RESEARCH INTERESTS EDUCATION Large Foundation Model, LLM-based Agent, Trustworthy AI

Georgia Institute of Technology, Atlanta, GA

Ph.D. in Computer Science August 2024 -

Advisor: Professor Wenke Lee

Brandeis University, Waltham, MA

M.S. in Computer Science May 2024

Brandeis University Merit Scholarship

Mentor: Mr. Chunhui Zhang, Professor Chuxu Zhang

University of Glasgow & UESTC, Glasgow, UK & Chengdu, CN

B.Eng. in Electronic and Information Engineering June 2022

ONGOING PROJECTS

Video Sanity Checker

[PDF]

A training-free pipeline automatically detects and reduces such hallucinations for high-quality cap-

tions. It surpasses the GPT4-o 47.5 % of the time.

PAPERS

LaCache: Ladder-Shaped KV Caching for Efficient Long-Range Generation of Large Language Models [PDF][Code]

Under review | Keeping "ladder-shape" KV cache and evicting others can bring LLM efficiency and performance, especially for long-context-aware reasoning.

Superficial Self-Improved Reasoners Benefit from Model Merging

[PDF]

arXiv | We identify Superficial Self-Improved Reasoners phenomenon during LLM self-improvement and mitigate it via iterative model merging

Xiangchi Yuan, Chunhui Zhang, Zheyuan Liu, Dachuan Shi, Soroush Vosoughi, Wenke Lee

LongMamba: Enhancing Mamba's Long-Context Capabilities via Training-Free Receptive Field Enlargement [PDF][Code]

International Conference on Learning Representations (ICLR), 2025

Zhifan Ye, Kejing Xia, Yonggan Fu, Xin Dong, Jihoon Hong, **Xiangchi Yuan**, Shizhe Diao, Jan Kautz, Pavlo Molchanov, Yingyan Celine Lin

AmoebaLLM: Constructing Any-Shape Large Language Models for Efficient and Instant Deployment [PDF][Code]

Neural Information Processing Systems (NeurIPS), 2024

Yonggan Fu, Zhongzhi Yu, Junwei Li, Jiayi Qian, Yongan Zhang, **Xiangchi Yuan**, Dachuan Shi, Roman Yakunin, Yingyan Celine Lin

Graph Cross Supervised Learning via Generalized Knowledge

[PDF][Code]

ACM International Conference on Knowledge Discovery and Data Mining (KDD), 2024.

Xiangchi Yuan, Yijun Tian, Chunhui Zhang, Yanfang Ye, Nitesh V. Chawla, and Chuxu Zhang

Mitigating Emergent Robustness Degradation while Scaling Graph Learning *International Conference on Learning Representations (ICLR)*, 2024

[PDF][Code]

Xiangchi Yuan*, Chunhui Zhang*, Yijun Tian, Yanfang Ye and Chuxu Zhang

Navigating Graph Robust Learning against All-Intensity Attacks [PDF][Code] International Conference on Machine Learning - New Frontiers in Adversarial Machine Learning Workshop (ICML Workshop), 2023

Xiangchi Yuan, Chunhui Zhang, Yijun Tian, and Chuxu Zhang

An End-to-End 12-Leading Electrocardiogram Diagnosis System Based on Deformable Convolutional Neural Network With Good Antinoise Ability [PDF][Code]

IEEE Transactions on Instrumentation and Measurement (IEEE TIM), 2021

Lang Qin, Yuntao Xie, Xinwen Liu, **Xiangchi Yuan**, and Huan Wang

HONORS AND AWARDS Brandeis University Merit Scholarship (\$ 40,000)

Brandeis University Conference Award

UESTC Outstanding Student Scholarship

2020 & 2021

WORKING EXPERIENCE

VeriSilicon Microelectronics, Chengdu, CN

Software Development Engineer Intern

February-May 2022

- Designed HDR adaptive curve fitting algorithm to meet hardware requirements
- Implemented CCM gamut mappings which suits hardware with fixed-point calculation
- This SoC IP was authorized to Google Pixel

TEACHING EXPERIENCE

Georgia Institute of Technology, Atlanta, GA

Teaching Assistant, CS6476 Computer Vision

Spring 2025

Brandeis University, Waltham, MA

Head Teaching Assistant, MATH-125A Mathematics for Machine Learning

Fall 2023

March 2025

INVITED TALKS

SERVICE

Brandeis University Research Retreat Georgia Tech OMSCS Brown Bag Talks

Program Committee/Conference Reviewer

July 2023 & 2024

WWW 2023, ICML 2023, ICLR 2024, ICASSP 2024, PAKDD 2024, COLING 2024, KDD 2024, NeurIPS

2024, ICLR 2025, ICML 2025