

Xuan Kan

✉ xuan.kan@emory.edu • 🌐 kanxuan.live

Education

- **Emory University** **Atlanta, US**
Sept.2019–Now
◦ *PhD of Computer Science and Informatics at CS Department*
Advisor: Prof. Carl Yang and Prof. Ying Guo
- **Tongji University** **Shanghai, China**
Sept.2014–Jul.2018
◦ *Bachelor of Software Engineering in School of Software Engineering*
- **GPA:** 4.55/5.0 (Tongji), 3.97/4.0(Emory)
- **Main Courses:** Artificial Intelligence, Machine Learning, Data Mining, Graph Mining, Information Retrieval, Advanced Database, Numerical Analysis

Skills

- **Programming:** Adept in Python, PyTorch, C++, Java, C, familiar with Tensorflow, JavaScript
- **Platforms:** Linux, MacOS, Anaconda

Honor and Awards

- 2018 Outstanding Graduates for Tongji University (Top 5%)
- 2017 National Scholarship (Top 1.6%)
- 2017 American Mathematical Contest in Modeling (S prize)
- 2017 Tongji University Programming Competition (Second Prize)
- 2017 National Undergraduate Innovation Programs
- 2016 China Undergraduate Mathematical Contest in Modeling (First Prize in Shanghai & Second Prize in National Level)
- 2016 Android Entrepreneurship Student Challenge by Google Inc.(Sliver Prize)
- 2015 & 2016 Tongji University Scholarship for Outstanding Students (Twice)

Publication

- **Xuan Kan**, Wei Dai, Hejie Cui, Zilong Zhang, Ying Guo, Carl Yang. "Brain Network Transformer", ICML 2022 Workshop for Interpretable Machine Learning in Healthcare 2022, **IMLH@ICML 2022, (Oral)**
- Yi Yang, Yanqiao Zhu, Hejie Cui, **Xuan Kan**, Lifang He, Ying Guo, Carl Yang. "Data-Efficient Brain Connectome Analysis via Multi-Task Meta-Learning", Proceedings of the ACM International Conference on Knowledge Discovery and Data Mining, **KDD 2022**
- Hejie Cui, Wei Dai, Yanqiao Zhu, **Xuan Kan**, Antonio Aodong Chen Gu, Joshua Lukemire, Liang Zhan, Lifang He, Ying Guo, Carl Yang (2022). BrainGB: A Benchmark for Brain Network Analysis with Graph Neural Networks. Under Review.

- **Xuan Kan**, Hejie Cui, Joshua Lukemire, Ying Guo, Carl Yang. "FBNetGen: Task-aware GNN-based fMRI Analysis via Functional Brain Network Generation", Medical Imaging with Deep Learning 2022, **MIDL 2022, (Oral)**
- **Xuan Kan**, Hejie Cui, Ying Guo, Carl Yang. "Effective and Interpretable fMRI Analysis via Functional Brain Network Generation", ICML 2021 Workshop for Interpretable Machine Learning in Healthcare 2021, **IMLH@ICML 2021**
- **Xuan Kan**, Hejie Cui, Carl Yang. "Zero-Shot Scene Graph Relation Prediction through Commonsense Knowledge Integration", The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases 2021, **ECML-PKDD 2021**
- Xiaoxuan Lu*, **Xuan Kan***, Stefano Rosa, Bowen Du, Hongkai Wen, Andrew Markham, Niki Trigoni. "AutoTune: Autonomous Learning for Face Recognition in the Wild via Ambient Wireless Cues", The Web Conference 2019, **WWW 2019** (Co-first author)
- Xiaoxuan Lu, **Xuan Kan**, Bowen Du, Changhao Chen, Hongkai Wen, Andrew Markham, Niki Trigoni, Jack Stankovic. "Poster Abstract: Towards Self-supervised Face Labeling via Cross-modality Association", The 15th ACM Conference on Embedded Networked Sensor Systems, **SenSys'2017**
- Xiaoxuan Lu, Bowen Du, **Xuan Kan**, Hongkai Wen, Andrew Markham and Niki Trigoni. "VeriNet: Passcode-Preserving User Verification on Smartwatches via Behavior Biometrics", The 1st ACM Workshop on Mobile Crowdsensing Systems and Applications, **CrowdSys'2017** (Colocated with MobiSys)

Internship

PhD Software Engineer Intern

Meta

Seattle, US

May.2022-August.2022

- Interned in Ads Core ML ENG-Privacy Team, leveraged the hypergraph neural network to alleviate the signal loss problem.
- Build a multi-task hypergraph neural network from scratch, including dataset generation, model implementation, and performance evaluation.
- Enlarge the hypergraph neural network by adding new hyperedges and nodes, incorporating STOA designs like attention mechanisms to improve model capacity and prediction performance.

Research Intern

SenseTime

Beijing, China

Feb.2019-July.2019

- Designed the search space for MobileNetV2.
- Measured the running time of different modules in mobile devices.
- Leveraged Neural Architecture Search to improve efficiency and accelerate the inference of neural networks on face anti-spoofing and stereo matching.

Research Intern

Cyber Physical Systems Group @ University of Oxford

Oxford, UK

April 2017-May.2018

- Autonomous Learning for Face Recognition in the Wild: proposed a method using Wi-Fi appearance information to label images automatically in wild and implemented a pipeline framework to label capturing images and fine-tune models.
- Real-time Liquids Intake Monitoring: utilized a SVM model to detect actions for drinking water in Android Wear OS.
- Biometric Verification without Leak: developed an app in Android Wear OS for collecting user motion data and implemented a method like counting CPU time slices to calculate the energy and CPU consumption of watch apps.

Vocational Training Intern

Shanghai Labs, SAP

Shanghai, China

Jun.2016-Aug.2016

- Selected as an excellent candidate for SAP vocational training project and learned ABAP development.

Academic Services

PC Member

- ICML 2022 Workshop on Interpretable Machine Learning in Healthcare
- ICCV 2021 Workshop on Computer Vision for Automated Medical Diagnosis
- ICML 2021 Workshop on Interpretable Machine Learning in Healthcare

Conference Reviewer

- 2022 Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD)
- 2022 SIAM International Conference on Data Mining (SDM)
- 2022 The Web Conference (WWW)
- 2022 Conference on Artificial Intelligence (AAAI)

Journal Reviewer

- IEEE Transactions on Big Data (Big Data)

TA

- CS170 Introduction to Computer Science
- CS326 Analysis of Algorithms