

Xuan Kan

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Education

- **Emory University** **Atlanta, US**
PhD of Computer Science and Informatics at CS Department *Sept.2019–Now*
Advisor: Prof. Carl Yang and Prof. Ying Guo
- **Tongji University** **Shanghai, China**
Bachelor of Software Engineering in School of Software Engineering *Sept.2014–Jul.2018*
- **Main Courses:** Artificial Intelligence, Machine Learning, Data Mining, Graph Mining, Information Retrieval

Skills

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

Research Experience

Scene Graph Generation with External Knowledge **Atlanta, US**
Prof. Carl Yang @ Emory University *Sept.2020–Now*

- Analysed why external knowledge is helpful.
- Designed and implemented an framework to generate scene graph with external knowledge from knowledge base.
- Achieve a better performance than the previous baseline.

A Graph-Embedded Neural Network For fMRI **Atlanta, US**
Prof. Ying Guo @ Emory University *Sept.2019–Sept.2020*

- Extract the prior knowledge from fMRI data.
- Designed and implemented an framework to incorporate external knowledge during training.
- Achieve a better performance with High Dimension Low Sample Size dataset.

AutoTune: Autonomous Learning for Face Recognition in the Wild **UK & China**
Dr. XiaoXuan Lu @ University of Oxford *Jul.2017–May.2018*

- Proposed a method using Wi-Fi appearance information to label image automatically in wild by Python programming
- Designed and implemented a pipeline framework to label capturing image and fine-tune model
- Hacked GoPro cameras and controlled them remotely with Raspberry Pi
- Conducted voting process to address the problem of unstable labeling accuracy

HydraDoctor: Real-time Liquids Intake Monitoring **UK & China**
Prof. Hongkai Wen @ University of Warwick *Mar.2017–Sept.2017*

- Developed 3 individual apps in Android watch, Google glass and smart phone with Java
- Constructed a communication protocol for those apps via Bluetooth
- Utilized a SVM model to detect action for drinking water in Android Wear OS

Biometric Verification without Leak **Shanghai, China**
Dr. XiaoXuan Lu @ University of Oxford *Apr.2017–Sept.2017*

- o Developed an app in Android Wear OS for collecting user motion data
- o Built a website which can slide pattern password for collecting common android pattern password
- o Implemented a method like counting cpu time slice to calculate the energy and CPU consumption of watch app

Honor and Awards

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

Publication

- o 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, formerly known as **WWW (Accept rate 18%, co-first author)**
- o Xiaoxuan Lu, Bowen Du, **Xuan Kan**, Kai Wu, Man Luo, Jianfeng Hou, KaiLi, Salil Kanhere, Yiran Shen, Hongkai Wen. "HydraDoctor: Real-time Liquids Intake Monitoring by Collaborative Sensing", International Conference on Distributed Computing and Networking, **ICDCN'2018**
- o 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**
- o 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

Researcher Intern

SenseTime

Beijing, China

Feb.2019

- o Neural Architecture Search in Face Anti-spoofing

Vocational Training Intern

Shanghai Labs, SAP

Shanghai, China

Jun.2016-Aug.2016

- o Selected as excellent candidate for SAP vocational training project, learned ABAP development

Open Source Contribution

Microsoft/samples-for-ai/Yolo V1 Tensorflow

Author: Kan Xuan, Luo Yi, Cui Hejie, Ding Yusheng, Li Yuan

Python

Jun.2018

- o https://github.com/Microsoft/samples-for-ai/tree/master/examples/tensorflow/yolo_tensorflow