

Jianfei Yang

No risk leads to disaster.

recent photo



contact

yang0478@ntu.edu.sg
http://marsrock.net
8158-6831

languages

Chinese mother tongue
English fluency

research

Mobile Computing
Computer vision
Machine learning

programming

♥ Python
Javascript, C++,
Matlab, Latex
CSS3 & HTML5
Verilog, Scala, Lua
R programming

education

- 2016–present **Doctor of Philosophy** Nanyang Technological University
School of Electrical and Electronic Engineering
Research Interests: **Mobile Computing** (*indoor localization and smart home*),
Computer Vision (*object tracking and recognition*), **Machine Learning** (*deep neural networks*)
- 2012–2016 **Bachelor** of Software Engineering Sun Yat-sen University
School of Data and Computer Science (*Major GPA: 3.7/4.0, top 10%*)
Graduate with **certificate of honor** in light of excellent scientific contribution.

experience

- 2014–2015 **Teaching Assistant** Sun Yat-sen University
Server for the C++ Programming/Cloud Computing Course.
- 2013–2014 **Internship: Vision Engineer in DJI** DJI Intern
Dedicated to visual tracking problem applied in UAV as a vision engineer.
- 2013–2014 **Founder of Microsoft Technology Club in Zhuhai** Operation
Undertake seminars and competitions for Microsoft.
- 2012–2013 **Chairman of Student Union** Leadership
Offer welfare and organize various activities.

projects

- 2017 **Indoor localization in Smart Home** NTU
We utilize commercial routers to track mobile devices equipped with WiFi modules passively, which is based on calibration data and machine learning techniques. Our system has been deployed in Germany, USA and Singapore.
- 2016 **Intelligent Photo Management Platform** Microsoft BOP
The users can use keywords to find the photo they want. We build the system by means of image recognition (extracting tags), voice recognition and natural language processing (semantic understanding).
- 2015 **Robot Presentation based on Nao** Robot Nao Development
It is specially designed for The Canton Fair. I programmed robot Nao to control the PC and make presentations. which was implemented by socket, Nao-api and markup language.
- 2014 **Search engine based on Wechat** Ke-teng Cup
Using data mining, I combine the searching result of Taobao, Dangdang, Amazon and Jingdong business platform and get the best result according to the requirement. The server is implemented by Flash (Python) while the client is based on Wechat.
- 2014 **Visual navigation system for a smart car** DJI Intern
Build a navigation system for a smart car based on computer vision, which combines SLAM, visual tracking and recognition.

Publications: Journals

- 2017 **Non-intrusive Occupancy Sensing in Commercial Buildings**
Han Zou, Hao Jiang, **Jianfei Yang**, Lihua Xie, Costas Spanos
Energy and Buildings 2017 (IF=4.067)
- 2017 **Compressive Perceptual Hashing Tracking with Online Foreground Learning**
Long Chen, Zheng Li, **Jianfei Yang**
Neurocomputing 2017 (IF=3.17)

Publications: Conference

- 2018 **Fine-grained Adaptive Location-independent Activity Recognition using Commodity WiFi** WCNC
Jianfei Yang, Han Zou, Hao Jiang, Lihua Xie
WCNC 2018
- 2018 **WiFi-based Human Identification via Convex Tensor Shapelet Learning** AAAI
Han Zou, Yuxun Zhou, **Jianfei Yang**, Lihua Xie, Costas Spanos
AAAI 2018
- 2017 **WiFi-based Device-Free Human Activity Recognition via Automatic Representation Learning** MOBICOM Poster
Han Zou, Yuxun Zhou, **Jianfei Yang**, Weixi Gu, Lihua Xie, Costas Spanos
MOBICOM 2017
- 2017 **Multiple Kernel Representation Learning for WiFi-based Human Activity Recognition** ICMLA 2017
Han Zou, Yuxun Zhou, **Jianfei Yang**, Weixi Gu, Lihua Xie, Costas Spanos
ICMLA 2017
- 2017 **FreeCount: Device-Free Crowd Counting with Commodity WiFi** GLOBECOM
Han Zou, Yuxun Zhou, **Jianfei Yang**, Weixi Gu, Lihua Xie, Costas Spanos
GLOBECOM 2017
- 2017 **FreeDetector: Device-Free Occupancy Detection with Commodity WiFi** SECON
Workshop
Han Zou, Yuxun Zhou, **Jianfei Yang**, Weixi Gu
Workshop on Smart and Connected Indoor Environments, SECON 2017
- 2016 **Item Sorting Platform Based on Cloud Computing** ICEBE
Minbiao Han, **Jianfei Yang**, Zhou Fang, Zhiyuan Fang
IEEE International Conference on e-Business Engineering 2016
- 2016 **Online Visual Tracking via Correlation Filter with Convolutional Networks** VCIP
Jianfei Yang, Zheng Li, Chang-Dong Wang, Weishi Zheng
IEEE International Conference on Visual Communications and Image Processing 2016
- 2015 **Compressive Perceptual Hashing Tracking with Online Foreground Learning** ROBIO
Jianfei Yang, Zheng Li, Long Chen, Juanzha
IEEE International Conference on Robotics and Biomimetics 2015
- 2015 **Robust Vehicle Tracking Using Perceptual Hashing Algorithm** ICMLA
Jianfei Yang, Zheng Li, Long Chen
IEEE International Conference of Machine Learning and Application 2015 .
- 2015 **Traffic Detection System Based on Unmanned Aerial Vehicle Integrated Analysis(UAVIA) in E-Business Logistics** ICEBE
Jianfei Yang, Zhaoyang Zeng, Zhou Fang
IEEE International Conference on e-Business Engineering 2015

awards

Dec. 2017	2017 Global Data Challenge, Champion (1/771)	JD Finance
May. 2017	Microsoft Imagine Cup in China, First Prize (2/782)	Microsoft
March. 2017	Buildathon of MOE of Singapore, Champion (1/120)	Ministry of Education of SG
Dec. 2016	China Mobile Internet of Things Hackathons, Champion	China Mobile
May. 2016	Microsoft Beauty of Programming Challenge, Champion	Microsoft Research Asia, IEEE
Nov. 2015	National Mobile Internet Innovation Contest, First Prize	Ministry of Industry
Sep. 2015	National Undergraduate IOT Design Contest, First Prize	Ministry of Education of China
Aug. 2015	HackNTU, Intel and Migo Prize	National Taiwan University
Jun. 2015	Unique Hack Day, Rank 2nd	Huazhong University of Science and Technology
Apr. 2015	American Mathematical Contest In Modeling, Meritorious Winner	International
Mar. 2015	Robot Hackathon in China, First Prize	ALDEBARAN
Sep. 2014	Ke-teng Cup Application Competition, First Prize	SYSU
Sep. 2013	Undergraduate First-class Scholarship and Giordano Scholarship	SYSU
Dec. 2012	Global Management Challenge 2nd Prize in China	GMC Committee

interests

professional:

- Computer vision (Object recognition and tracking, image processing)
- Android / IOS app development (Specific design for customer)
- PC Software design (Qt for C/C++ and Python)
- Data mining (Participate in a intelligent transportation planning project)
- Cloud computing (Familiar with Windows Azure, SAE, GAE, etc)
- Unmanned aerial vehicle (Control and visual system)

personal:

- Saxophone (Toppest grade certified by the China Conservatory of Music)
- Guitar, Ukulele (Playing and singing)
- Climbing and photography (Outward Bound Trainer certified by the Ministry of human resources and social security in China)