recent photo

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

languages
Chinese mother tongue
English fluency

research
Data mining
Machine learning
Computer vision

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)*

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 works.

experience

2014-2015	**Teaching Assistant**	Sun Yat-sen University

Server for the Cloud Computing/Software Engineering 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**	Management

The chairman of Student Union in the School of Mobile Information Engineering.

projects

2016	**Indoor localization in Smart Home**	NTU

We utilize commercial off-the-shelf routers to localize mobile devices equipped with WiFi modules passively for smart home. The localization algorithm is based on calibration data and machine learning algorithms. The system has been deployed in several countries including Germany, USA and Singapore.

2015	**Naorrator Display Framework based on Robot Nao**	Robot Nao Development

The display system is 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 Application Competition

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 recognition system for a smart car. I use the color and texture information to recognize the extern objects and guide its direction.

2013	**Low-cost communication system based on 3G**	Provincial Scientific Research Project

Build a low-cost communication system based on image detection and subtraction, compression and transmission.

Publications: Conference

2017   **WiFi-based Human Identification via Convex Tensor Shapelet Learning**   AAAI
Han Zou, Yuxun Zhou, *Jianfei Yang*, Lihua Xie, Costas Spanos
AAAI 2017

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

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)

awards

May. 2017	**Microsoft Imagine Cup in China, First Prize**	Microsoft
March. 2017	**Buildathon of Ministry of Education of Singapore, Champion**	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 app creation (Specific design for customer)
- 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)