SHUYANG SUN (孙书洋)

Address: Room 412, Building J03 – Electrical Engineering Building, Maze Crescent, Darlington NSW 2008, Australia.

Email: shuyang.sun@sydney.edu.au; kevinssy@qq.com

Research Interests: Computer Vision/ Machine Learning/ Pattern Recognition/ Image Processing

EDUCATION

M.Phil. in Engineering and IT	Oct. 2017-Present
The University of Sydney (USYD), Supervisor: Wanli Ouyang	Sydney, Australia
B.E. in Software Engineering	Sep. 2012-June. 2016
Wuhan University (WHU)	Wuhan, China

WORK EXPERIENCE

Junior Research Assistant;	Oct. 2016-Oct. 2017
Multimedia Lab, the Chinese University of Hong Kong (CUHK)	Hong Kong SAR, China
Computer Vision Researcher;	Feb. 2016-Oct. 2017;
SenseTime Group Limited	Shenzhen & Hong Kong SAR, China
Data Development Engineer Intern;	July 2015-Sep. 2015
Alibaba Inc.	Hangzhou, China

PUBLICATION

[1] <u>**Shuyang Sun**</u>, Zhanghui Kuang, Wanli Ouyang, Lu Sheng, Wei Zhang, *Optical Flow Guided Feature: A Fast and Robust Motion Representation for Video Action Recognition,* IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018 (accepted).

[2] Haiyu Zhao, Maoqing Tian, <u>**Shuyang Sun**</u>, Jing Shao, Junjie Yan, Shuai Yi, Xiaogang Wang, *Spindle CNN: Person Re-identification with Body Region Re-splice,* IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017.

[3] Hui Yang, Feng Liu, Zhiqi Wang, Han Tang, <u>**Shuyang Sun**</u>, and Shilei Sun, *Research on the Content-Based Classification of Medical Image,* Journal of Medical Imaging and Health Informatics (IF=0.877), 7, 129–136 (2017).

[4] <u>**S.Y. Sun**</u>, F. Liu, N. Ma, X. Li, C.C. Tang, *Preserving privacy of thoracic radiographs using image segmentation,* Journal of Medical Imaging and Health Informatics (IF=0.877), Volume 5, Issue 8, 1982-1988 (2015).

SELECTED PROJECTS

Optical Flow Guided Feature: A Fast & Robust Motion Representation for Video Action Recognition
Feb. 2017-Oct. 2017
SenseTime & USYD

- The network with OFF fed only by RGB inputs achieves a competitive accuracy of 93.3% on UCF-101, which is comparable with the result obtained by two streams (RGB and optical flow), but is **15 times** faster in speed.
- Achieve state-of-the-art result on two popular video datasets: UCF-101 & HMDB-51 when applying OFF onto optical flow

SenseVideo: Deep Action-Recognition in large scale video databases
May 2016–Feb. 2017
SenseTime & CUHK

- Provide technical solutions for large scale video database (over 10 million samples) classification and tagging.

SensePose: Deep Pose-Estimation
Feb. 2016–May 2016
SenseTime & CUHK

- Speed up the baseline algorithm from 8fps to 350fps with only 5% accuracy drop based on CNN architecture.

Privacy-Preserved Medical Image Cloud Database Construction

WHU

Oct. 2015-Feb. 2016

- Developing deep image retrieval (CBIR) algorithm in image database retrieval.

Preserving Privacy of Thoracic Radiographs Using Image Segmentation

WHU

Nov. 2014-Jun. 2015

- Developing image segmentation & disturbing algorithms about radiographs.

PROGRAMMING LANGUAGES & RELATED LIBRARIES

Machine Learning Framework:	Caffe, PyTorch, Torch, NumPy, sk-learn
Programming Languages:	Python, Java, C/C++, Matlab, Lua, HTML/CSS/JavaScript, SQL…
Other Related Libraries:	Python Image Library (PIL), OpenCV, CUDA…

TEACHING EXPERIENCE

1. Teaching Assistant: Objective Oriented Programming – Java   Sep. 2015–Jan. 2016, WHU

- Taking full charge of the experimental class & most popular TA around the year.

2. Teaching Assistant: Discrete Mathematics   Feb. 2015–Jun. 2015, WHU

SCHOLARSHIP

Third Prize Scholarship of WHU (ranking: 13/78)	2015
Third Prize Scholarship of WHU (ranking: 16/78)	2014

EXTRACURRICULAR ACTIVITIES

1. Vice Captain; Debate Team, International School of Software, WHU;   Sep. 2012–June. 2016

- Won the third place of the Freshmen Debate among 64 teams.

2. Member; Student Union of International School of Software, WHU;   Sep. 2012–Sep. 2013

- Served as one of the editors of the school's journal.

LANGUAGE

IELTS: 7.5 (Listening: 7.5, Reading: 9.0, Writing: 6.5, Speaking: 6.0);

GRE: 317 (Quantitive: 170 Verbal: 147) AW: 3.0