Zhe WANG

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Multimedia Research Center
1068 Xueyuan Avenue, Shenzhen University Town, Shenzhen, P.R.China

EDUCATION

Sep. 2010-Jul. 2014 **B.S.** in Digital Media Technology, Beijing University of Posts and Telecommunications, Beijing
Major GPA: 85.67/100, Junior Spring Semester **GPA: 90.35/100(Rank 1/30)**

RESEARCH INTEREST

Computer Vision: action/scene/object recognition, action localization
Machine Learning: representation learning, deep learning

PUBLICATION

Z. Wang as first author and obtain state-of-the-art performance on MIT indoor and SUN397, submitted on CVPR, 2016

Z. Wang as co-author and process action recognition real-time and obtain state-of-the-art performance on UCF101 and THUMOS14, submitted on CVPR, 2016

Z. Wang, Y. Wang, L. Wang, and Y. Qiao, Codebook Enhancement of VLAD Representation for Visual Recognition, submitted on ICASSP, 2016

L. Wang, Y. Xiong, **Z. Wang**, and Y. Qiao, Towards Good Practices for Very Deep Two-Stream ConvNets, ArXiv 1507.02159, 2015

L. Wang, **Z. Wang**, W. Du, and Y. Qiao, Object-Scene Convolutional Neural Networks for Event Recognition in Images, ChaLearn Looking at People (LAP) workshop, CVPR, 2015

Z. Wang, L. Wang, W. Du, and Y. Qiao, Exploring Fisher Vector and Deep Networks for Action Spotting, ChaLearn Looking at People (LAP) workshop, CVPR, 2015

L. Wang, **Z. Wang**, Y. Xiong, and Y. Qiao, CUHK&SIAT Submission for THUMOS15 Action Recognition Challenge, THUMOS Challenge 2015, CVPR 2015

RESEARCH EXPERIENCE

Nov. 2014 – now **Action Recognition**
Multimedia Research Center, Shenzhen Institutes of Advanced Technology
Research Assistant *Advisor: Prof. Yu Qiao*

- To improve the ability for Fisher Vector by incorporating Semantics meaning
- To bridge the gap between deep learning and fisher vector by modeling the process of Fisher Vector using deep learning
- Improve vlad by considering both dimension reduction and the structure when doing dimension reduction
- Explore the distance of dimension reduction for codebook generation of VLAD encoding
- Try to reduce dimension of Fisher Vector by generating codebook and reducing dimension of descriptor simultaneasly using MPPCA and corresponding Fisher Vector

Sep. 2014 – Oct. 2014 **Terror Detection in Videos**
Multimedia Research Center, Shenzhen Institutes of Advanced Technology
Research Assistant *Advisor: Prof. Yu Qiao*

- Develop my own DCNN and test with our own dataset with accuracy of 98%
- Co-develop hybrid representation using BOVW fusion methods and test with our dataset with accuracy of 97%
- Construct a dataset about 500g to test models and adjust its parameter

Dec. 2013 – Jul. 2014 **3D face reconstruction using RGBD image—my graduation thesis**

Image recognition and high-speed image processing laboratory, Tsinghua University
Research Intern *Advisor: Prof. Guangda Su*

- Develop a reconstruction system for face at 30fps
- Construct interface between OpenCV, PCL and Kinect SDK

PROJECTS EXPERIENCE

May. 2012 – Jun. 2013 **Computer Composition Principle Demonstration Site**
Beijing Key Lab of Intelligent Telecommunication Software and Multimedia, BUPT
Coder and Designer *Advisor: Prof. Xudong Yang*

- Demonstrated computer composition principle—one of BUPT best courses, using the structure of struts2 and JSP with the function of bbs, resources sharing and id identification
- Independently designed and implented the Login Part using html& javascript to make the site concise and beautiful
- Worked on the part of uploading and downloading part, helped to upload& download courseware and handouts, use both Web front-end way based on javascript and MYSQL ways to detect the size of file and format of file
- Proposed the using of AJAX to make the access of the site speed faster
- Learned how to cooperate with others on coding by using SVN and shared with others some developing tools such as FIREBUG, MYSQLFRONT
- Experienced the process of Software Engineering from requirement analysis to coding, from databases designing to site maintenance

Apr. 2012 – Mar. 2013 **Mobile Phone Network Evaluation Software Based on Android System**
Key Lab of Universal Wireless Communications, BUPT
Coder and Designer *Advisor: Prof. Hongtao Zhang*

- Evaluated the network environment by users' marking based on Android system and transfered the mark to server for analysis, an Android apk was deveolped
- Independently designed the GUI using Javascript, the beauty and concision of my way outstanded among the alternative ways
- Coded for the part of identification, made the the communication between server and terminal safer and enhanced my basis of computer networks such as three times handshake& p2p

CONTESTS

Sep.2015	ChaLearn Looking At People'ICCV15: Cultural Event Classification	Rank 3/11
Apr.2015-May.2015	THUMOS'15 Action Classification Challenge	Rank 5/11
Feb.2015	ChaLearn Looking At People'CVPR15: Cultural Event Classification	Rank 1/7
Feb.2015	ChaLearn Looking At People'CVPR15: Action/Interaction Classification	Rank 1/2
Sep.2014-Oct.2015	First Audio and Video Competition: Terror Video Detection	Rank 5/11

PROFESSIONAL ACTIVITIES

August.2015 Reviewer for ICCV 2015 workshop

HONORS AND AWARDS

May.2014	Outstanding Board Manger for bbs.byr.cn
Oct. 2013	Second-class JDSU Scholarship—Top 10 among 231 innovation project teams
Sep. 2013	Second-class Scholarship(Rank 12%), Merit Student
Sep. 2012	Third-class Scholarship, Excellent Student Cadres
Dec. 2011	The third prize in English dubbing contest
Apr. 2012	The third prize in Bookmark design contest