Curriculum Vitae



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DATE OF BIRTH April 18 1988
OCCUPATION Ph.D. Student
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CONTACTS

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RESEARCH INTERESTS

Object Tracking, Object Recognition, Machine Learning, Deep Learning

QUALIFICATIONS

Jul. 2010 - Present Sept. 2006 - Jul. 2010

Ph.D. B.S. COMPUTER SCIENCE & TECHNOLOGY
COMPUTER SCIENCE & TECHNOLOGY

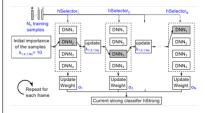
Northwestern Polytechnical University Northwestern Polytechnical University

PROJECT EXPERIENCE

2013.06

Object Tracking using Deep Learning Technology

2014.03

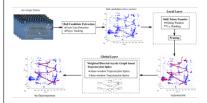


We tackle the generic object tracking problem by a novel approach that incorporates a deep learning architecture with an on-line AdaBoost framework. Inspired by its multi-level feature learning ability, a stacked denoising autoencoder (SDAE) is used to learn multi-level feature descriptors from a set of auxiliary images.

2012.04

Ball Trajectory Tracking in Tennis Game Video

2012.12



A two layered data association method to improve the robustness of tennis ball tracking. At the local layer, a shift token transfer method is proposed, based on shift window processing, to generate a set of short trajectories or "trajectorylets". At the global layer, a unique ball trajectory is obtained by applying a dynamic programming based splice method to a directed acyclic graph consisting of trajectorylets.

2011.05

Towards a Queue-Aware ATM: Monitoring and Managing Queues in front of ATMs

2011.12



In order to monitoring queues in front of ATMs, apply stereo camera real-time object tracking approach. With the aid of camera's real-time tracking, develop a simple application system which can give customer a suggested queue and estimated queuing time.

2010.09

Keyword Spotting based Real-time Dialog System



Make a question-set limited Dialog System implemented by Keyword Spotting approach with improved Online Garbage Model. My main task is proposing a improved method based on Online Garbage Keyword Spotting Model.

• • ETEX

2010.09

Keyword Spotting Tool



Make a Keyword Spotting Tool which user can dynamically add or remove keywords by hand.

SKILLS

- • C
- • Python
- • Matlab

- Bash
- English
- Emacs
- • OpenCV
- • Git
- • Linux

Honors and Awards

- 2014 The Paper of ICIP 2014 was recognized as the Top 10 papers
- 2014 | Received IEEE Signal Processing Society Travel Grant to Attend ICIP 2014, Paris, France
- 2013 | Received IEEE Signal Processing Society Travel Grant to Attend ICASSP 2013, Vancouver, Canada
- 2011 | Awarded by Northwestern Polytechnical University Scholarship Fund for Six-month Visiting Researcher
- 2010 | First Prize Scholarship of Northwestern Polytechnical University
- 2009 National Endeavor Scholarship
- 2009 | First Prize of C Programming Contest of Northwestern Polytechnical University
- 2009 | First Prize Scholarship of Northwestern Polytechnical University
- 2008 National Endeavor Scholarship
- 2008 | First Prize Scholarship of Northwestern Polytechnical University
- 2007 | Second Prize of ACM Programming Contest of Northwestern Polytechnical University
- 2007 | First Prize Scholarship of Northwestern Polytechnical University
- 2007 | Third Prize of Mathematical Modeling Contest of Northwestern Polytechnical University

ACTIVITIES

Oct. 28, 2014	Oral Presentation on ICIP 2014
May 30, 2013	Poster Presentation on ICASSP 2013
Mar., 2012 - Sept., 2012	Visiting Researcher at University of East Anglia, Norwich, U.K.
Apr., 2011 - Oct., 2011	Conference Organizing Committee Member for APSIPA ASC 2011
Nov. 23 - 25, 2010	Oral Presentation on ICALIP 2010
Oct. 26 - 29, 2010	Invited Demonstration for UIC/ATC 2010
Jul., 2009	Intern at China Pacific Insurance (Group) Co., Ltd.
Jun., 2009	Intern at KunShan (Suzhou) Ambow Software Training Base

PUBLICATIONS

- [1] Xiangzeng Zhou, Lei Xie, Qiang Huang, and Stephen J. Cox. Tennis ball tracking using a two-layered data association approach. *IEEE Transactions on Multimedia (TMM)*, 2014 (Accepted).
- [2] Xiangzeng Zhou, Lei Xie, Peng Zhang, and Yanning Zhang. An ensemble of deep neural networks for object tracking. In *IEEE International Conference on Image Processing (ICIP)*, Paris, France, 2014.
- [3] Xiangzeng Zhou, Qiang Huang, Lei Xie, and Stephen J. Cox. A two layered data association approach for ball tracking. In *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Vancouver, Canada, 2013.
- [4] Qiang Huang, Stephen J. Cox, **Xiangzeng Zhou**, and Lei Xie. Detection of ball hits in a tennis game using audio and visual information. In *IEEE Asia-Pacific Signal Information Processing Association Annual Summit and Conference (APSIPA ASC)*, pages 1–10, Hollywood, California, 2012.
- [5] Bingfeng Li, Lei Xie, Xiangzeng Zhou, Zhonghua Fu, and Yanning Zhang. Real-time speech-driven virtual avatar. In *National Conference on Man-Machine Speech Communication (NCMMSC)*, Xi'an, China, 2011.
- [6] Jianwei Niu, Lei Xie, Xiaoming Lu, Xiangzeng Zhou, and Yanning Zhang. Multi-confidence feature integration for utterance rejection in robust speech recognition. In *National Conference on Man-Machine Speech Communication (NCMMSC)*, page 4, Xi'an, China, 2011.
- [7] Lei Xie, Wenhuai Zhao, Xiangzeng Zhou, Xiaohai Tian, Bingfeng Li, Naicai Sun, Yali Zhao, and Yanning Zhang. Speech and auditory interfaces for ubiquitous, immersive and personalized applications. In Immersive and Personalized Applications, Ubiquitous Intelligence Computing and the 7th International Conference on Autonomic Trusted Computing (UIC/ATC), Xi'an, China, 2010.

