

Zehuan Yuan

Building of Computer Science and Technology, Nanjing University, China

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EDUCATION BACKGROUND

Nanjing University, Nanjing, China

Ph.D. 2014.09 - now

Department of Computer Science and Technology

* Supervisor: Prof. Tong Lu

Nanjing University, Nanjing, China

M.S. 2012.09 - 2014.06

Department of Computer Science and Technology

* Supervisor: Prof. Tong Lu

Nanjing University, Nanjing, China

B.S. 2008.09 - 2012.06

Department of Computer Science and Technology

* Overall GPA: 4.36/5 Major GPA: 4.45/5 Rank: 19/160

RESEARCH INTERESTS

Computer Vision: Unsupervised vision problems including large-scale object co-segmentation and category discovery; high-level vision problems such as semantic scene understanding and action understanding in videos.

Machine Learning: Deep learning and optimization methods, especially on efficient learning for deep networks and understanding deep networks.

RESEARCH EXPERIENCE

State Key Lab for Novel Software Tech. of Nanjing University

2012.09 - now

* Postgraduate mentored by Prof. Tong Lu.

* We mainly focus on image cosegmentation and action understanding in videos .

University of Michigan, Ann Arbor, U.S.

Visiting Student. 2015.10 - 2017.03

* mentored by Prof. Jia Deng.

* We focus on action recognition and detection in videos.

Undergraduate Innovation Project of the Ministry of Education, China

2010.12 - 2011.12

* Team leader of the project advised by Prof. Tong Lu.

* We propose an incremental 3D reconstruction framework to refine an existing 3D model using online images of the same object.

PUBLICATIONS

Journal papers

[J01]. **Zehuan Yuan**, Tong Lu, Chew Lim Tan. Learning discriminated and correlated patches for multi-view object detection using sparse coding. *Pattern Recognition (PR)*. To appear. 2017

[J02]. Yirui Wu, Tong Lu, **Zehuan Yuan** and Hao Wang. FreeScup: a novel platform for assisting sculpture pose design. *IEEE Transactions on Multimedia (TMM)*, 19(1): 183-195, 2017

[J03]. **Zehuan Yuan**, Hao Wang, Liming Wang and Tong Lu. Modeling Spatial Layout for Scene Image Understanding via a Novel Multiscale Sum-Product Network. *Expert Systems with Applications (ESWA)*, 63: 231-240, 2016

[J04]. Palaiahnakote Shivakumara, **Zehuan Yuan**, Danni Zhao, Tong Lu, and Chew Lim Tan. New Gradient-Spatial-Structural Features for Video Script Identification. *Computer Vision and Image Understanding (CVIU)*, 34(6): 559-564, 2014.

[J05]. **Zehuan Yuan**, and Tong Lu. Incremental 3D Reconstruction Using Bayesian Learning. *Applied Intelligence*, 39(4): 761-771, 2013.

Conference papers

- [C01]. **Zehuan Yuan**, Jonathan Stroud, Tong Lu, Jia Deng. Temporal action localization by structured maximal sums. *Computer Vision and Pattern Recognition (CVPR) 2017*. To appear.
- [C02]. Yirui Wu, Tong Lu, **Zehuan Yuan** and Hao Wang. FreeScup: a novel platform for assisting sculpture pose design. *International Conference on Multimedia and Expo (ICME)*. pp.1-6, 2015. **(Oral)**.
- [C03]. **Zehuan Yuan**, Tong Lu, and Palaiahnakote Shivakumara. A Novel Topic-level Random Walk Framework for Scene Image Co-Segmentation. *European Conference on Computer Vision (ECCV)*. pp.695-709, 2014
- [C04]. **Zehuan Yuan**, and Tong Lu. A Novel Context-Aware Topic Model for Category Discovery in Natural Scenes. *Asian Conference on Computer Vision (ACCV)*. pp.158-171, 2014.
- [C05]. **Zehuan Yuan**, Tong Lu, Haoyi Zhou, Chen Bin, and Jianing Li. Incremental 3D Reconstruction Using Bayesian Learning. *International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE)*. pp.754-763, 2012. **(Best Paper Award)**

PATENT

Zehuan Yuan, and Tong Lu. An Incremental 3D Reconstruction Method Based on PMVS and Bayesian Model. ZL201110411429.6. **(National Invention Patent, China)**

CONTEST

National Graduate Contest on Smart-City Technology and Design 2014

- * Project: We propose an new concept to design a scalable and intelligent building management system.
- * Team member: Qisu Li, **Zehuan Yuan**, Yirui Wu, and Guozhu Liang.
- * Grade: National Second Prize.

“Challenge Cup” of Chinese College Students of Academic Science and Technology 2012

- * Project: We design an intelligent building system platform on which many applications of diverse function can be designed and programmed easily.
- * Team member: Run Xing, Zhi Qu, **Zehuan Yuan**, Wenliang Dai, Yu Yin, Xuanjun Dong, Runhua Chen, and Zhun Shi.
- * Grade: National Bronze Prize and Golden Prize at Jiangsu Province.
- * Remark: It is the highest level contest for graduate and undergraduate students in China.

INTERNATIONAL EXCHANGE

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- * An one-month short visit to National University of Singapore. 2012
 - * An 18-month long visit to the University of Michigan 2015.10-2017.03

HONORS & AWARDSHonors

- * Outstanding Student Leader of Nanjing University. 2014
- * Outstanding Student of Nanjing University. 2013
- * Best 100 Excellent College Students of China Computer Federation (CCF). 2012
- * Outstanding Graduate of Nanjing University. 2012
- * Outstanding Student of Nanjing University. 2011

Awards

- * Selected into the Talent Project of Nanjing University. 2014
- * Second Prize in National Intelligent City Contest for Graduate Students in China. 2014
- * Graduate National Scholarship. 2013
- * Best Paper Award by ISAI (International Society of Applied Intelligence) in IEA/AIE. 2012
- * National Bronze Prize in the Eighth “Colledge Cup” of Chinese College Students. 2012
- * Golden Prize in the Seventh “Colledge Cup” of College Students at Jiangsu Province. 2012
- * Excellent Thesis for Bachelor’s Degree of Nanjing University. 2012
- * Excellent Undergraduate Innovation Project of Nanjing University. 2012
- * National Motivational Scholarship. 2012
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- * National Motivational Scholarship. 2010