

# Chenxu Luo

## PERSONAL

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## EDUCATION

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Sep. 2016- Ph.D in Computer Science, Johns Hopkins University  
Advisor: Alan Yuille (Bloomberg Distinguished Professor)

Sep. 2012- Jul.2016 Bachelor of Science in Information and Computational Science  
School of Mathematical Sciences, Peking University, Beijing, China

## WORK EXPERIENCE

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AUG. 2016 -	Research assistant in computer science department Whiting School of Engineering, Johns Hopkins University Advisor: Alan Yuille Topic: Joint 2D and 3D human pose estimation from monocular images.
MAR. 2015 - JUN. 2016	Research assistant in National Engineering Laboratory for Video Technology, School of EECS, Peking University Advisor: Yizhou Wang Topic: Action Recognition from 3D skeletons.

## LANGUAGES

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Chinese(Native), English(Fluent)

## PROGRAMMING SKILLS

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Programming Languages	C/C++,python,lua,matlab,
Deep Learning Frameworks	torch, pytorch, caffe, mxnet,tensorflow,
Operating Systems	Linux, Windows

## RESEARCH INTERESTS

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My research interests lie in the field of computer vision, robotics, machine learning, especially deep neural networks.  
Currently, I am focused on recognizing and understanding human in the scene. I am interested in its applications in robotics and human-computer interaction.  
I am also interested in other topics such as 3D vision and generative models.

## PUBLICATIONS

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1. **Chenxu Luo**, Chang Ma, Chunyu Wang, Yizhou Wang. Learning Discriminative Activated Simplices for Action Recognition. AAAI 2017.

## RESEARCH EXPERIENCES

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### Human Pose Estimation

- Implemented and trained the “Stacked Hourglass Network” in caffe and torch. I modified the network and achieved better result on MPII dataset.
- Implemented a volumetric regression network for 3D human pose estimation from monocular images combining 2D joints locations, based on stacked hourglass network architecture.
- Proposed a fully convolutional kinematic model for 3D Human pose estimation that combines localization of 2D joints and dense regression for 3D pose of each body parts.
- Our methods can take advantages of multi-source data including images with 2D annotations, 3D datasets captured in controlled environments as well as large amount of synthetic data with groundtruth annotations.
- In preparation and will be submitted to ICCV 2017.

### Action Recognition based on 3D skeletons

- Enhanced the discrimination of previous activated simplices method by adding block-diagonal constrains and introducing shared dictionary.
- Achieved the state-of-the-art results on three popular 3D action recognition datasets as well as a large new composed dataset.
- This work is published in AAAI 2017.

## COURSE PROJECTS

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- Foundations of Digital Media (12/2015,Peking University)  
Detecting vehicles and people in surveillance video using faster-rcnn. Rank top in the course project challenge.

## AWARDS

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- Freshman Scholarship,2nd class,Peking University,2012
- “May Forth” Scholarship,Peking University,2013
- “99” Mathematical Scholarship,School of Mathematical Sciences,2014
- Leo KoGuan Scholarship,Peking University,2015
- Award for Academic Excellents, Peking University,2015