Zhiheng Li– Curriculum Vitae

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(last update: December 2018)

Education

2018 - now   **PhD**, Department of Computer Science, University of Rochester, NY, USA

Advisor Prof. Chenliang Xu

2014 - 2018   **Bachelor of Engineering**, Department of Computer Science, Wuhan University, Hubei, China

Advisor Prof. Zhenzhong Chen

Publications

2018   **Lip Movements Generation at a Glance**
            Lele Chen[*], **Zhiheng Li**[*], Ross K Maddox, Zhiyao Duan, Chenliang Xu (* **equal contribution**)
            The European Conference on Computer Vision (ECCV), 2018, pp. 520-535

Research interests

Semantic Segmentation, Action Recognition, Video Generation.

Research experience

Sep. 2017 -   University of Rochester
Oct. 2017   *Lip Movements Generation*

- Worked on generating video clip of lip movements based on audio speech.

- Proposed a method that strengthens correspondence between audio information and visual information.

- The project is written in Python and is based on PyTorch.

Sep. 2017 -   University of Rochester
Oct. 2017   *Deformable Convolution 3D*

- Refactored CUDA C++ code for extending deformable convolution to 3D model.

- Applied deformable convolution 3D in action recognition task and tested on different action recognition datasets, such as UCF101, Kinetics, etc.

Apr. 2016 -	Wuhan University
Jun. 2017	*Abnormal Event Detection in Surveillance Video*

- Focused on the Surveillance Event Detection (SED) task of TRECVID to detect abnormal events from surveillance camera video.

- Incorporated Faster R-CNN, an advanced object detection algorithm, as a pedestrian detector into our model.

- Developed a visual tool for the purpose of showing the detection results using Qt and OpenCV.

Technical Skills

Programming Languages: Python, CUDA C/C++, Java, C, C++, Ruby, Swift, Objective-C
Frameworks: PyTorch, Caffe, MxNet, OpenCV, Qt

Related Courses

University of Rochester

- CSC 577: Advanced Topics in Computer Vision

- CSC 453: Dynamic Languages and Software Development

- CSC 400: Graduate Problem Seminar

Wuhan University

- Digital Image Processing

- Data Structure

- Calculus

- Linear Algebra

- Probability and Statistics

- Discrete Mathematics

Coursera

- Neural Network and Machine Learning

Honors and Awards

- **Wuhan University First-Class scholarship**