

# CHUANMIN JIA

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## CONTACT INFORMATION

Institute of Digital Media  
National Engineering Laboratory for Video Technology  
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Peking University  
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## RESEARCH INTERESTS

- Image and Video Processing/Compression
- Light Field Technology
- Deep Learning
- Computational Imaging

## EDUCATION

- Peking University** Sep. 2011 – Current
- *Ph.D.* in Computer Science
  - Advisor: Prof. Siwei Ma and Prof. Wen Gao
- Beijing University of Posts and Telecommunications** Sep. 2011 – Jul. 2015
- *B.Eng* in Computer Science and Technology
  - Overall GPA 86.7/100, rank: 10%
  - Thesis: Research on Compressed Video Enhancement and GPU Acceleration. (in Chinese)

## RESEARCH EXPERIENCE

- Institute of Digital Media**, Peking University Sep. 2014 – present
- *Research Assistant*
- Institute of Computational Linguistics**, Peking University Feb. 2014 – Aug 2014
- *Research Intern*
- Innovation Research Center**, Beijing Univ. of Posts. & Telecom. Aug. 2013 – Mar. 2014
- *Research Intern*

## JOURNAL PUBLICATIONS

- Siwei Ma, Xinfeng Zhang, Jian Zhang, **C. Jia**, Shiqi Wang and Wen Gao “Nonlocal In-Loop Filter: The Way Toward Next-Generation Video Coding?,” *IEEE MultiMedia* 23 (2), 16-26.

## CONFERENCE PUBLICATIONS

- **C. Jia**, X. Zhang, J. Zhang, S. Wang and S. Ma, “Deep Convolutional Network based Image Quality Enhancement for Low Bit Rate Image Compression,” *Proc. of IEEE Visual Communications and Image Processing (VCIP)*, Chengdu, China, Nov. 2016. (Oral)
- J. Zhang, **C. Jia**, N. Zhang, S. Ma, and W. Gao, “Structure-driven Adaptive Non-local Filter for High Efficiency Video Coding (HEVC),” *Proc. of IEEE Data Compression Conference (DCC)*, Snowbird, Utah, USA, Mar. 2016. (Oral) (**Top Conference in Data Compression**)
- J. Zhang, **C. Jia**, S. Ma, and W. Gao, “Non-Local Structure-Based Filter for Video Coding,” *Proc. of IEEE International Symposium on Multimedia (ISM)*, Miami, Florida, USA, Dec. 2015. (Oral)

## HONORS AND AWARDS

- 1<sup>st</sup> prize of Video Big Data Compression Contest in the National Graduate Contest on Smart-City Technology. 2016
- Excellent Graduation Thesis Award, Beijing Univ. of Posts. & Telecom. 2015
- Innovation Scholarship (Collaborative Innovation Center for Future Media Network). 2015

- Honorable Mention Winner in American Mathematical Contest in Modeling. 2014

## PROFESSIONAL SERVICE

### REVIEWER

- Journal of Visual Communication and Image Representation, JVCIR. (since Oct 2016)

### CONFERENCES (ORAL OR POSTER) AND INVITED TALKS

- Deep Convolutional Network based Image Quality Enhancement for Low Bit Rate Image Compression, VCIP2016, Chengdu, China, Nov. 2016

### MEMBERSHIPS

- Student Member, IEEE

## SELECTED PROJECTS

### **View Synthesis Optimization,**

**Apr. 2016 - Sep. 2016**

- Optimizing an open-source view synthesis software using CUDA. 6X acceleration, real time FHD (1080P) view synthesis with over 40fps.

### **NFC Tour Guide,**

**Aug. 2013 - Mar. 2014**

- Developed an Android app using NFC for tourism. Mainly responsible for implementing of NFC pay, speech tour guide and database interface design.

### **Flower Recognition,**

**Jul. 2013 - Sep. 2013**

- Proposed recognition algorithm by combining histogram and contour feature with linear classifier. iOS app development and recognition algorithm implementation.

## SKILLS

- Programming: C/C++, CUDA, MATLAB, Power Shell, HTML, Python, L<sup>A</sup>T<sub>E</sub>X.
- Operating System: Mac OS X, Ubuntu Linux, Windows
- Libraries/Frameworks: Caffe, OpenCV, Numpy, Tensorflow, HEVC/H.265, AVS2
- Github Repo: <https://github.com/codersadis>

*Last updated: Dec.14 2016*