

# CHUANMIN JIA

---

CONTACT	Institute of Digital Media, S2728, School of EE & CS, Peking University, Haidian District, Beijing 100871, China <a href="http://www.jiachuanmin.site">http://www.jiachuanmin.site</a> Google Scholar	✉ <a href="mailto:cmjia@pku.edu.cn">cmjia@pku.edu.cn</a>
RESEARCH INTERESTS	<ul style="list-style-type: none"><li>• Video Processing</li><li>• Light Field Image Compression</li><li>• Machine Learning</li></ul>	
EDUCATION	<b>Peking University (PKU)</b> , Beijing, China <ul style="list-style-type: none"><li>• <i>Ph.D.</i> candidate in Computer Science</li><li>• Advisor: Prof. Siwei Ma and Prof. Wen Gao</li></ul> <b>Beijing Univ. of Posts. &amp; Telecom. (BUPT)</b> , Beijing, China <ul style="list-style-type: none"><li>• <i>B.Eng</i> in Computer Science and Technology</li><li>• Overall GPA 86.7/100, rank: 10%</li><li>• Thesis: Research on Compressed Video Enhancement and GPU Acceleration. (in Chinese)</li></ul>	Sep. 2015 – Current  Sep. 2011 – Jul. 2015
RESEARCH EXPERIENCE	<b>Institute of Digital Media</b> , Peking University <ul style="list-style-type: none"><li>• <i>Research Assistant</i></li></ul> <b>Institute of Computational Linguistics</b> , Peking University <ul style="list-style-type: none"><li>• <i>Research Intern</i></li></ul> <b>Innovation Research Center</b> , Beijing Univ. of Posts. & Telecom. <ul style="list-style-type: none"><li>• <i>Research Intern</i></li></ul>	Sep. 2014 – present  Feb. 2014 – Aug 2014  Aug. 2013 – Mar. 2014
JOURNAL PAPERS	<ul style="list-style-type: none"><li>• Siwei Ma, Xinfeng Zhang, Jian Zhang, <b>C. Jia</b>, Shiqi Wang and Wen Gao “Nonlocal In-Loop Filter: The Way Toward Next-Generation Video Coding?,” <i>IEEE MultiMedia</i> 23 (2), 16-26.</li></ul>	
CONFERENCE PAPERS	<ul style="list-style-type: none"><li>• <b>C. Jia</b>, S. Wang, X. Zhang, S. Wang and S. Ma, “Spatial-Temporal Residue Network Based In-Loop Filter for Video Coding”, <b>Accepted by IEEE Visual Communications and Image Processing (VCIP)</b>, St. Petersburg, Florida, USA, Dec, 2017. (TBD)</li><li>• <b>C. Jia</b>, Y. Yang, X. Zhang, S. Wang, S. Wang and S. Ma, “Light Field Image Compression with Sub-apertures Reordering and Adaptive Reconstruction”, <b>Accepted by the Pacific-Rim Conference on Multimedia (PCM)</b>, Harbin, China, Sept, 2017. (Oral)</li><li>• <b>C. Jia</b>, Y. Yang, X. Zhang, S. Wang, X. Zhang, S. Wang and S. Ma, “Optimized Inter-view Prediction Based Light Field Image Compression with Adaptive Reconstruction”, <i>Proc. of IEEE International Conference on Image Processing (ICIP)</i>, grand challenge for LF image coding, Beijing, China, Sept, 2017. (Oral)</li><li>• <b>C. Jia</b>, X. Zhang, J. Zhang, S. Wang and S. Ma, “Deep Convolutional Network based Image Quality Enhancement for Low Bit Rate Image Compression,” <i>Proc. of IEEE Visual Communications and Image Processing (VCIP)</i>, Chengdu, China, Nov. 2016. (Oral)</li></ul>	

- 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

- IEEE International Symposium on Multimedia (ISM). (since Aug 2017)
- IEEE Visual Communication and Image Processing (VCIP). (since July 2017)
- Journal of Visual Communication and Image Representation, JVCIR. (since Oct 2016)

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

- Optimized Inter-View Prediction Based Light Field Image Compression With Adaptive Reconstruction, *ICIP2017, Grand Challenge for Light Field Image coding, Beijing, China, Sep. 2017*
- 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 fps acceleration, achieving 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: August 25th 2017*