

# CHUANMIN JIA

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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>New York University (NYU)</b> , New York, U.S. <ul style="list-style-type: none"><li>• Visiting Scholar</li><li>• Advisor: Prof. Yao Wang</li></ul> <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>	Dec. 2017 – present  Sep. 2015 – present  Sep. 2011 – Jul. 2015
RESEARCH EXPERIENCE	<b>Tandon School of Engineering</b> , New York University <ul style="list-style-type: none"><li>• <i>Research Assistant</i></li></ul> <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>	Dec. 2017 – present  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. (Oral)</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”, <i>Proc. of the Pacific-Rim Conference on Multimedia (PCM)</i>, Harbin, China, Sept, 2017. (Oral) (<b>Best Paper Award</b>)</li></ul>	

- **C. Jia**, 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”, *Proc. of IEEE International Conference on Image Processing (ICIP)*, grand challenge for LF image coding, Beijing, China, Sept, 2017. (Oral)
- **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

- **Best Paper Award** of the Pacific-Rim Conference on Multimedia (PCM) conference, 2017
- 1<sup>st</sup> prize of Video Big Data Compression Contest of 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 ACTIVITY

##### 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)

##### CONFERENCE ORAL PRESENTATIONS AND INVITED TALKS

- Light Field Image Compression with Sub-apertures Reordering and Adaptive Reconstruction, *PCM2017, Harbin, China, Sep. 2017*
- 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. Achieving 6x acceleration, with real time FHD (1080P) view synthesis 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, Python,  $\text{\LaTeX}$ .
- Operating System: Mac OS X, Ubuntu Linux, Windows
- Libraries/Frameworks: Caffe, MXNET, Tensorflow, HEVC/H.265, AVS2
- Github Repo: <https://github.com/codersadis>

*Last updated: October 9th 2017*