

# CHUANMIN JIA

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## EDUCATION

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### Peking University

Ph.D. in Computer Science

*Sep. 2015 - Current*

### Beijing University of Posts and Telecommunications

B.E. in Computer Science & Technology

GPA: 86.7/100, rank: 10%

Thesis: (*Research on Compressed Video Enhancement and GPU Acceleration*)

*Sep. 2011 - Jul. 2015*

## PUBLICATIONS

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### Journal Paper

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

### Conference Paper

- **Chuanmin Jia**, Xiang Zhang, Jian Zhang, Shiqi Wang, Siwei Ma, Deep Convolutional Network based Image Quality Enhancement for Low Bit Rate Image Compression, 2016 IEEE Visual Communications and Image Processing (**Oral**) (Coming soon).
- Jian Zhang, **Chuanmin Jia**, Siwei Ma, Wen Gao, Structure-driven Adaptive Non-local Filter for High Efficiency Video Coding (HEVC), 2016 IEEE Data Compression Conference (DCC) (**Oral**).
- Jian Zhang, **Chuanmin Jia**, Siwei Ma, Wen Gao, Non-Local Structure-Based Filter for Video Coding, 2015 IEEE International Symposium on Multimedia (ISM), 301-306 (**Oral**)..

## RESEARCH

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### Video Coding Lab

Research Assistant

*Sep. 2015 - Present*

*Peking University, Beijing*

- Working in the area of video compression with an emphasis on in-loop filter and deep learning. Built a novel in-loop filter algorithm for High Efficiency Video Coding (HEVC) for both significant objective and subjective quality.
- Established a novel deep convolutional network based image compression framework (on going work is to optimize).
- CUDA-based multi-view synthesis optimization algorithm (x6 faster than original).

### Institute of Computational Linguistics

Research Internship

*Feb. 2014 - Aug. 2014*

*Peking University, Beijing*

- Generating Chinese word embedding by deep learning algorithm and apply word embedding into NLP tasks such as POS tagging, NER, etc.
- Deep learning application on Chinese word segmentation.

### Innovation Research Center

Research Internship

*Aug. 2013 - Mar. 2014*

*Beijing University of Posts and Telecommunications, Beijing*

- Developed Android app for tourism safety with NFC. Its a component of National Undergraduate Innovation Project. Mainly responsible for code implementation of NFC pay, intelligent speech tour guide and database interface design.
- As a member of flower recognition project, proposed recognition algorithm by combining histogram and contour feature with linear classifier. Mainly Responsible for iOS app development and recognition algorithm implementation.

## SKILLS

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**Programming Language:** C/C++, CUDA, Python, Power Shell, MATLAB, HTML  
**Operating System:** Mac OS X, Ubuntu Linux, Windows  
**Libraries/Frameworks:** Caffe, OpenCV, Numpy/Scipy, Keras, HEVC/H.265, AVS2  
**Github Repository:** <https://github.com/codersadis/>

## AWARDS

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Excellent Graduation Thesis.	2015
Innovation Scholarship (Collaborative Innovation Center for Future Media Network).	2015
Honorable Mention (The Consortium for Mathematics and Its Application, COMAP).	2014

## SERVICE

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Volunteers for Beijing Garden EXPO 2013