

CHUANMIN JIA

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EDUCATION

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*)

September 2011 - July 2015

PUBLICATIONS

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, Shiqi Wang, Jian Zhang, Siwei Ma, Deep Convolutional Network based Image Quality Enhancement for Low Bit Rate Image Compression, 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), IEEE Data Compression Conference (DCC2016) (**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

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 optimizing).
- CUDA-based multi-view synthesis optimization algorithm (x6 faster than original one).

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 svm classifier. Mainly Responsible for iOS app development and recognition algorithm optimization..

SKILLS

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

Volunteers for Beijing Garden EXPO 2013