

# WEN-TAO ZHANG (TOBY)

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## EDUCATION

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### **Peking University**

*Sep. 2013 - Present*

B.S. in Computer Science

– Overall GPA: 3.54/4.0    Major GPA: 3.62/4.0

National Engineering Laboratory for Video Technology (NELVT), Video Coding Technology Lab

Advisor: Siwei Ma

## EXPERIENCE

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### **Students' Association of College of EECS, Peking Univ.**

*Sept. 2013 - June 2014*

*Member of Academic Dept.*

Organized several lectures about overseas studying and postgraduate recommendation

### **Video Coding Technology Lab, Peking Univ.**

*Apr. 2015 - Present*

*Intern*

Did research on High Efficiency Video Coding

### **Zhang Research Group, Computer Systems Lab, Cornell Univ.**

*July 2016 - Sept. 2016*

*Intern*

Did research project about Binarized Neural Network (BNN) Acceleration

## AWARDS, GRANTS & HONORS

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International Olympiad in Informatics (IOI) 2013 China Team Selection Competition Ninth Place

The ACM-ICPC Asia Regional Contest Chengdu Site 2013 Silver Medal (Twenty-third Place)

Merit Student of Peking University, 2013 - 2014 Academic Year

Tung OOCL Scholarship, 2013 - 2014 Academic Year

The ACM-ICPC Asia Regional Contest Mudanjiang Site 2014 Gold Medal (Tenth Place)

## PROJECTS

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### **Image Segmentation**

*Jun. 2015*

A naive implementation based on Graph-Cut algorithm

<https://github.com/nsknj/graph-cut-based-on-maxflow>

### **Log File System**

*Jan. 2016*

Designed a client caching mechanism for Hadoop Distributed File System (HDFS)

<https://github.com/nsknj/LogFileSystem>

### **Pedestrian and Car Detection on Dataset PKUSVD**

*Nov. 2015 - Dec. 2015*

Neural network was based on Fast-RCNN, Proposal algorithm: ACF & EdgeBox

<https://github.com/nsknj/fast-rcnn-final>

### **Birdway**

*Oct. 2015 - Dec. 2015*

A collaborative editing plugin for Atom

<https://github.com/yangzhixuan/birdway>    <https://github.com/nsknobjj/Birdway-Server>

### **Video coding based on object features**

*June 2015 - May 2016*

Built an application that can search for a similar frame in a video using extracted features

### **Big File Upload plugin on Jupyter Notebook**

*April 2016 - June 2016*

Add a plugin to upload big file on Jupyter Notebook

<https://github.com/nsknobjj/notebook/tree/upload>

### **Binarized Neural Network (BNN) acceleration project**

*July 2016 - Sept. 2016*

Test the baseline of BNN, and implemented BNN with Halide, a language for parallelization and optimization

<https://github.com/nsknobjj/bnn-halide> (private)

## **STRENGTHS**

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Computer Languages: C++, Python, JAVA, Shell Script

Hobbies and Interests: table tennis, billiards, music, movie

## **PUBLICATIONS**

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### **A PHOTO TAKEN AT BROOKLYN BRIDGE**

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