Education

#### **University of Chinese Academy of Sciences**

M.S. IN SIGNAL AND INFORMATION PROCESSING

**Xidian University** 

B.S. IN SCIENCE AND TECHNOLOGY OF THE ELECTRONICS INFORMATION

Beijing, China

Sep. 2013 - Jul.2016

Xi'an, China

Sep. 2009 - Jul.2013

# **Professional Experience**

Kuaishou Beijing, China

ALGORITHM ENGINEER Dec. 2016 - Present

- Focused on Video Copy Detection and developed a video similarity reranking and video copy validation method.
- Designed and developed two logo recognition algorithms based on OCR and Faster RCNN. Updated old logo recognition based on local feature. The precision is 99.6% and the logo algorithms recall 70,000 logo videos if the number of uploaded videos is 6400,000.
- · Researched and developed Content-Based Image Retrieval system based on fusion CNN feature and hand-craft feature. The mean average precision achieved 80% on Oxford Building dataset.

Meituan Beijing, China

ALGORITHM DEVELOPER Jul. 2016 - Dec. 2016

- Designed and Developed anti-cheat strategies to fetch sellers who violate the rules of the meituan online takeaway platform.
- · Analyzed data of the meituan takeaway business for risk control. Did report forms to monitor some important data.

### **Etracker Team (Student's Start-up)**

Xi'an, China

ALGORITHM ENGINEER

Oct. 2015 - Jul. 2016

- Designed and implemented eye-gaze detection algorithms to track pupil using C++, OpenCV and OpenMP.
- · Implemented eye tracker calibration algorithms to map attention coordinates to screen coordinates, and developed pupil tracking desktop application using QT.

# OPTical IMagery Analysis and Learning Lab (Prof. Xuelong LI)

Xi'an, China

Sep. 2013 - Jul. 2016

RESEARCHER FOR CONTENT BASED IMAGE RETRIEVAL (CBIR), UNDERGRADUATE RESEARCH

- Researched large-scale content based image retrieval method including hashing based method and product quantion method.
- Proposed new hashing based methods for CBIR using sparse coding and matrix factorization.
- Built object detection system using HOG and SVM method for a 973 program.

# **Publications**

- Xuelong Li, Yong Yuan and Xiaoqiang Lu, Latent Semantic Minimal Hashing for Image Retrieval. IEEETIP, 2016 (MINOR REVISION)
- Yong Yuan, Xiaoqiang Lu, and Xuelong Li. Learning Hash Functions Using Sparse Reconstruction. ACM ICIMCS, pp. 14-18, 2014 (Best Paper Runner-up Award)
- Xuelong Li, Xiaoqiang Lu, and Yong Yuan. A Latent Semantic Minimal Hash-based Image Retrieval Method. CN 201510106890, 2016 (Patent)

# Personal Projects \_\_\_\_\_

### **CNN CBIR Benchmark**

IMAGE RETRIEVAL, CODE Apr. 2016 - Now

- Researched on object retrieval using CNN and classical encoding methods.
- Implemented some CBIR methods and tries to build a benchmark on Public dataset.

#### **CNN for Image Retrieval**

DEEP LEARNING, CODE Apr. 2015 - Apr. 2016

- Researched content-based image retrieval using VGG convolutional neural network.
- Implemented prototype that users can obtain semantic similarity image relevant to a query on web site.
- · Optimized the query response speed to make sure it responds to the user's query in a timely manner.

### **Hashing Baseline for Image Retrieval**

Approximate Nearest Neighbor Research, Code

Feb. 2013 - Jun. 2016

- Designed a framework to validate the performace of various hashing methods with different evaluations.
- · Implemented some hashing methods, and proposed new hashing method for image retrieval.

## **DuplicateSearch**

OBJECT RETRIEVAL Jun. 2015 - Mar. 2016

• Implemented the BoW, VLAD, and Fisher Vector encoding methods using VLFeat, and conducted object retrieval experiments on a 100,000 clothes and shoes image dateset.

- Built multithreads using openMP to speed up feature extraction and clustering.
- Improved the mean average precision using the RANSAC reranking algorithm.

## SeetaFaceLib

FACE IMAGE RETRIEVAL SYSTEM, CODE

Sep. 2016 - Oct. 2016

- Developed a face image retrieval system using CNN method based on SeetaFaceEngine.
- Optimized the query respond speed using Local Sensitive Hashing methood.

# **Technical Skills**

**Programming** C++/C, Python, Matlab, SQL, HTML, CSS, LaTeX

**Tools** OpenCV, Caffe, Xcode, QT, Jupyter, Git, Django

**Languages** Chinese, English

# **Honors & Awards**

2016.4 **Merit Student**, University of Chinese Academy of Sciences

2012.11 National Scholarship, Xidian University

2011.11 The First Prize Scholarship, Xidian University

2010.11 National Scholarship for Encouragement, Xidian University