Yong **Yuan**

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Education

University of Chinese Academy of Sciences — *Beijing, China*

M.S. in Signal and Information Processing — *Sep. 2013 - Jul.2016*

Xidian University — *Xi'an, China*

B.S. in Science and Technology of The Electronics Information — *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*

Researcher for Content Based Image Retrieval (CBIR), Undergraduate Research — *Sep. 2013 - Jul. 2016*

- 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