

# Jianhan MEI

Room 304, NO. 1068 Xueyuan Avenue, Nanshan, Shenzhen  
Mobile: (+86)15691869771 Email: jianhan.mei.opt@gmail.com  
<http://meijianhan.github.io/jianhanmei.github.com>

## Education

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**2009.09 - 2013.07** B.S. in Electronic Engineering, South China University of Technology Guangzhou  
GPA: 3.63/4 (major), 3.46/4 (overall)

## Research & Professional Experience

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**2015.08 - Present** Research Assistant in Shenzhen Institute of Advanced Technology, CAS

➤ *Image Motion Deblurring*

- Participated in the national blurry image processing contest which was sponsored by National Natural Science Foundation of China and held by XI'AN Jiaotong University
- Jointly Trained the CNN for blur classification and processing

**2015.07 - 2015.08** Internship in DJI - Innovations

➤ *Navigation System for Quadrotor in Artificial Map*

- Developed an onboard visual navigation system for quadrotor which was based on computer vision
- The system was built for artificial map and used in Robomasters Competition (a national competition held by DJI - Innovations)

**2013.07 – 2015.07** Research Assistant in XI'AN Institute of Optics and Precision Mechanics, CAS

➤ *Content Based Image Retrieval Website*

- Implemented and parallelized part of the retrieval system, which was based on Bag-of-Visual-Word model for first vision
- Implemented VLAD encoding, product quantization for second vision
- Built the website using PHP and HTML for data management and layout respectively
- To visit the site (have not bought any domain name): <http://112.74.126.249/ALIY/>

➤ *Medical Image Retrieval Project of CAS*

- Extracted VLAD vector for CT image representation
- Extracted intermediate representation for image using a collective matrix factorization method
- Prepared the paper named “Latent Semantic Intermediate Representation for Medical Image Retrieval” for publication

**2009.09 – 2013.07** Research Assistant in South China University of Technology

➤ *Acoustic Source Denoising and Localization Based on Beamforming Algorithm*

- Learned the beamforming algorithm
- Built a localization and denoising system using acoustic sensor array, which got a 15dB enhancement result on specified direction

➤ *Interaction Control Based on Gesture Detection and Tracking*

- Implemented a gesture detection and tracking algorithm based on Adaboost and meanshift using OpenCV
- Built the communication system between the embedded system and the clients which usually are personal computers and implemented control from embedded system to clients

## Skills

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**Programming Skills:** C, Java, PHP, HTML, Python, Matlab, VHDL

**Programming Package:** OpenCV, CUDA, Caffe, VLFeat

**Mathematical tool:** Linear Algebra, Matrix Theory, Numerical Analysis, Probability and Mathematical Statistics

**Knowledge:** Computer Vision, Machine Learning, Image Retrieval, Image Deblurring, Bag of Words Model, VLAD, Fisher Vector, Inverted Index, Product Quantization, Convolution Neural Network

**OS:** Windows, Linux (Ubuntu, CentOS)

## Awards

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➤	2014	2 <sup>nd</sup> Prize	Image Retrieval Challenge on Data Castle (a national information contest)
➤	2012	2 <sup>nd</sup> Prize	Intel Cup in Embedded System Design Invitational Contest
➤	2012	2 <sup>nd</sup> Prize	Electronic Design Contest of Guangdong Province
➤	2012	Cai Jianzhong	Scholarship (Top 3%)
➤	2011	Honorable Mention	National Electronic Design Contest
➤	2011	Outstanding Winner	Interdisciplinary Contest in Modeling (COMAP - ICM) (Highest Award)
➤	2011	3 <sup>rd</sup> Class	Scholarship
➤	2011	2 <sup>nd</sup> Prize	Mathematical Contest in Modeling of Guangdong Province
➤	2010	3 <sup>rd</sup> Prize	Mathematical Contest in Modeling of Guangdong Province
➤	2010	1 <sup>st</sup> Prize	Mathematical Contest in Modeling of Central China Region

## Publication

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[1] **Jianhan Mei**, “Latent Semantic Intermediate Representation for Medical Image Retrieval”, arXiv

## Language

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**English:** Fluency (IELTS: 6.0)