

GUANGCAN MAI

✉ csgcmai@life.hkbu.edu.hk · ☎ +852 95656007 · 🌐 www.comp.hkbu.edu.hk/~csgcmai

🎓 EDUCATION

Hong Kong Baptist University (HKBU), Kowloon, Hong Kong SAR Sept. 2013 – Aug. 2018
Ph.D in Computer Science (CS)

Michigan State University, East Lansing, US Feb. 2016 – Aug. 2016
Visiting Scholar in PRIP Lab, Dept. of Computer Science and Engineering

South China University of Technology (SCUT), Guangzhou, China Sept. 2010 – Jul. 2013
B.Eng. in Computer Science and Technology (CS)
* Selected by SCUT for a special program for most promising students and finished the program in 3 years

👤 EXPERIENCE

Hong Kong Baptist University Kowloon, Hong Kong SAR Sept. 2017 – Present
Research Assistant Advisor Prof. Pong C. Yuen

- Research on extracting secure and discriminative face templates with deep network in an end-to-end fashion, the research paper will be submitted to *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*

Michigan State University East Lansing, US Feb. 2016 – Aug. 2016
Visiting Scholar Advisor Prof. Anil K. Jain

- Research on facial image reconstruction from CNN representations (details can be found in research paper)

Hong Kong Baptist University Kowloon, Hong Kong SAR Sept. 2013 – Aug. 2018
Ph.D student Advisor Prof. Pong C. Yuen

- Research on multi-biometric (face, fingerprint and iris) template protection system, a binary feature fusion algorithm has been developed (details can be found in research paper)
- Research on entropy measurement for binary template based biometric verification systems

South China University of Technology Guangzhou, China May 2012 – May 2013
Research undergraduate Advisor Prof. Xingming Zhang

- Develop a mobile surveillance system which base on Android, mobile camera and server
- A software copyright
- *The First Prize* in International Contest of InnovAtioN (Guangdong)

South China University of Technology Guangzhou, China May 2011 – May 2012
Research undergraduate Advisor Prof. Shaohua Tang and Dr. Xiaozheng Lai

- Develop a low-cost encryption chip and control system using Xilinx FPGA
- *Third Prize* in OpenHW 2011
- *The Most Favorite Project* in Guangdong First Colleague Innovation & Startup Contest

🔗 SERVICES

Student helper IAPR/IEEE Winter School on Biometrics 2017

Research Student Representative Faculty of Science, HKBU 2014 – 2016

President Chinese Students and Scholars Association (CSSA), HKBU 2014 – 2016

Volunteer IEEE Conference on Embedded & Real-Time Computing Systems and Applications 2015

♥ AWARDS AND HONORS

- *Excellent Teaching Assistant Performance Award* HKBU-COMP Feb. 2017
- *Four Years Ph.D Scholarship* HKBU 2013 – 2017
- *Third Prize, ACM-ICPC (Hong Kong)* Jun. 2014
- *National Motivational Scholarship* 2011, 2012
- *Merit Student* SCUT 2011, 2012
- *Nomination, Top-ten Excellent Team in SCUT (20 teams are nominated)* 2012
- *The Most Favorite Project* Guangdong First Colleague Innovation Oct. 2012
- *First Prize* International Contest of InnovAtioN (Guangdong) Sept. 2012
- *Third Prize* Open Source Hardware and Embedding System Contest (20/218) Jun. 2012
- *Second Prize* Guangdong Robot Contest Sept. 2011
- *Excellent Student Cadre, SCUT* 2011

🎤 PRESENTATIONS

- **Guangcan Mai**, Fusing Binary Templates for Multi-biometric Cryptosystems (slides) (video) Sept. 2015
- Washington DC, US

📖 PUBLICATIONS

- **Guangcan Mai**, Kai Cao, Pong C Yuen and Anil K. Jain, On the Reconstruction of Face Images from Deep Face Templates, *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, to appear, 2018
- **Guangcan Mai**, Meng-Hui Lim and Pong C Yuen, Binary Feature Fusion for Discriminative and Secure Multi-biometric Cryptosystems, invited submission, *Image and Vision Computing (IVC)*, Feb 2017, Volume 58, Pages 254–265
- **Guangcan Mai**, Meng-Hui Lim and Pong C Yuen, On the Guessability of Binary Biometric Templates: A Practical Guessing Entropy based Approach. *IJCB2017*
- **Guangcan Mai**, Meng-Hui Lim and Pong C Yuen, Fusing Binary Templates for Multi-biometric Cryptosystems. *BTAS2015*
- Meng-Hui Lim, Sunny Verma, **Guangcan Mai** and Pong C Yuen, Learning Discriminability-Preserving Histogram Representation from Unordered Features for Multibiometric Feature-Fused-Template Protection, *Pattern Recognition*, Dec 2016, Volume 60, Pages 706–719

🗨 PAPER REVIEWS

- IEEE Transactions on Information Forensics and Security, since 2016
- IEEE Transactions on Image Processing, since 2018
- IEEE Transactions on Cybernetics, since 2018
- *Anonymous Reviewer* for ACM MM2018, AAAI2018, ICB2018, ICASSP2018, ISBA2018, CCB2017

⚙ IT SKILLS

- Programming language: Python, MATLAB, C/C++, Java, PHP, VerlogHDL (ordered by proficiency)
- Platform and tools: Windows, Linux, Android, Vim, L^AT_EX, Office, Git, Visual Studio, MXNET, FPGA, PyTorch, Tensorflow

🔍 RESEARCH INTERESTS

Biometric Security, Machine Learning, Pattern Recognition, Deep Learning, Computer Vision

👤 OTHERS

- GitHub: <https://github.com/csgcmai>
- Language, Mandarin (Chinese), Cantonese, English