Chunlei Peng, Xidian University

CONTACT

VIPS Lab

INFORMATION School of Cyber Engineering

Xidian University, No. 2 South Taibai Road

Xi'an, China, 710071

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Homepage:

http://chunleipeng.com/
Google scholar: Link

RESEARCH INTERESTS Machine learning, computer vision, image processing, and pattern recognition with applications to **heterogeneous image transformation** (e.g. face sketch-photo synthesis) and **heterogeneous face recognition** (e.g. matching viewed/composite/forensic sketches to face photos, and matching near-infrared/thermal-infrared images to visible light face images).

EDUCATION EXPERIENCES

Sep. 2016 - Sep. 2017

Visiting Graduate Student in Biomedical Engineering Department

Duke University, Durham NC, USA Supervised by Prof. Sina Farsiu

Sep. 2012 - Dec. 2017

Ph.D. Candidate in Intelligent Information Processing

School of Electronic Engineering Xidian University, Xi'an, China

Adviser: Xinbo Gao

Sep. 2008 - July 2012

Bachelor in Electronic Information Engineering

School of Electronic Engineering Xidian University, Xi'an, China

Undergraduate thesis: "Adaptive Markov Random Field based Face Sketch-

Photo Synthesis" (Outstanding undergraduate thesis)

Rank: 6/543

RESEARCH EXPERIENCES

- Multimedia Information Processing and Analysis, supported by the National Natural Science Foundation of China (Grant No. 61125204), participant, 2012.01-2015.12
- Generalized Sparse Representation based Heterogeneous Face Image Transformation and Quality Assessment, supported by National Natural Science Foundation of China (Grant No.61172146), participant, 2012.01-2015.12
- Heterogeneous Image Transformation and Quality Assessment, supported by the Fundamental Research Funds for the Central Universities (Grant No. JB149901), participant, 2014.01-2015.12
- On Cross Media Heterogeneous Image Transformation and Recognition based on Big Data, Transverse Research Projects, participant, 2013.11-2015.04
- Transductive Learning based Heterogeneous Face Image Transformation from An Arbitrary Profile, supported by the Fundamental Research Funds for the Central Universities (Grant No. K50513100009), participant, 2013.01-2013.12

PUBLICATIONS

Recent publications can be found from the Google Scholar page.

Journals

- [1] **Chunlei Peng**, Xinbo Gao, Nannan Wang, and Jie Li, "Graphical Representation for Heterogeneous Face Recognition," *IEEE Transactions on Pattern Analysis and Machine Intelligence (IEEE TPAMI)*, vol. 39, no. 2, pp. 301-312, 2017. (IF: 8.329)
- [2] **Chunlei Peng**, Xinbo Gao, Nannan Wang, Dacheng Tao, Xuelong Li, and Jie Li, "Multiple Representations based Face Sketch-Photo Synthesis," *IEEE Transactions on Neural Networks and Learning Systems (IEEE TNNLS)*, vol. 27, no. 11, pp. 2201-2215, 2016. (IF: 6.108)
- [3] **Chunlei Peng**, Xinbo Gao, Nannan Wang, and Jie Li, "Superpixel-based Face Sketch-Photo Synthesis," *IEEE Transactions on Circuits and Systems for Video Technology (IEEE TCSVT*), vol. 27, no. 2, pp. 288-299, 2017. (IF: 3.599)
- [4] **Chunlei Peng**, Xinbo Gao, Nannan Wang, and Jie Li, "Sparse Graphical Representation based Discriminant Analysis for Heterogeneous Face Recognition," *arXiv preprint arXiv:1607.00137*, 2016.
- [5] Jie Li, Xinye Yu, **Chunlei Peng**, and Nannan Wang, "Adaptive Representation-based Face Sketch Synthesis," *Neurocomputing*, Accepted, 2016. (IF: 3.317)
- [6] Xinbo Gao, Nannan Wang, **Chunlei Peng**, and Chengyuan Li, "Triple Space Fusion based Face Image Recognition," *Pattern Recognition and Artificial Intelligence*, vol. 28, no. 9, pp. 811-821, 2015. (Invited, in Chinese)

Conference

- [1] **Chunlei Peng**, Nannan Wang, Xinbo Gao, and Jie Li, "Face Recognition from Multiple Stylistic Sketches: Scenarios, Datasets, and Evaluation," *European Conference on Computer Vision workshop on Visual Analysis of Sketches*, 2016, pp. 3-18. (**Oral**)
- [2] **Chunlei Peng**, Jie Li, Nannan Wang, and Xinbo Gao, "Multi-View Representation based Face Sketch Synthesis," *ACM International Conference on Internet Multimedia Computing and Service (ICIMCS)*, 2014, pp. 307-312.
- [3] Decheng Liu, **Chunlei Peng**, Nannan Wang, Jie Li, and Xinbo Gao, "Composite Face Sketch Recognition based on Components," *International Conference on Wireless Communications and Signal Processing (WCSP)*, 2016, pp. 1-5.
- [4] Xinye Yu, Nannan Wang, **Chunlei Peng**, Jie Li, and Xinbo Gao, "Adaptive Representation-based Face Sketch Synthesis," *International Conference on Intelligence Science and Big Data Engineering (IScIDE)*, 2016, pp. 1-8.

Book Chapter

[1] Nannan Wang, Shengchuan Zhang, **Chunlei Peng**, Jie Li, and Xinbo Gao, "Face Sketch Recognition via Data-driven Synthesis," *Handbook of Biometrics for Forensic Science*, Springer, pp. 127-147, 2017. (Invited Book Chapter)

PATENTS

- [1] Xinbo Gao, **Chunlei Peng**, et al., "Forensic Sketch based Face Recognition," *Chinese Patent Pending*, No. 201410166300.7, 2014.
- [2] Jie Li, **Chunlei Peng**, et al., "Multiple Features Fusion based Image Synthesis," *Chinese Patent Pending*, No. 201410165469.0, 2014.
- [3] Xinbo Gao, **Chunlei Peng**, et al., "Graphical Representation based Face Sketch-Photo Recognition," *Chinese Patent Pending*, No. 201510397326.7, 2015.
- [4] Xinbo Gao, **Chunlei Peng**, et al., "Superpixel based Face Sketch Synthesis," *Chinese Patent Pending*, No. 201510395890.5, 2015.
- [5] Xinbo Gao, Wenjun Ren, Nannan Wang, Jie Li, **Chunlei Peng**, et al., "Image Quality Assessment based Synthesized Face Image Recognition," *Chinese Patent Pending*, No. 201410133868.9, 2014.
- [6] Xinbo Gao, Yanting Hu, Nannan Wang, Jie Li, Wenjun Ren, **Chunlei Peng**, et al., "Cascade Linear Regression based Image Super-Resolution", *Chinese Patent Pending*, No. 201410766467.7, 2014.
- [7] Jie Li, Mingjin Zhang, Xinbo Gao, Nannan Wang, Shengchuan Zhang, **Chunlei Peng**, et al., "Support Vector Machine based Sketch Style Classification," *Chinese Patent Pending*, No. 201410330945.X, 2014.
- [8] Xinbo Gao, Shengchuan Zhang, Nannan Wang, Jie Li, Mingjin Zhang, Yanting Hu, **Chunlei Peng**, and Wenjun Ren, "Greedy Search based Face Sketch Synthesis," *Chinese Patent Pending*, No. 201410818175.3, 2014.
- [9] Xinbo Gao, Nannan Wang, Wenjun Ren, Jie Li, Yanting Hu, Shengchuan Zhang, Mingjin Zhang, and **Chunlei Peng**, "Feature Similarity based Synthesized Face Sketch Quality Assessment," *Chinese Patent Pending*, No. 201410771613.5, 2014.
- [10] Nannan Wang, Xinbo Gao, Shengchuan Zhang, Jie Li, Feng Wang, Xinye Yu, Mingjin Zhang, **Chunlei Peng**, and Yanting Hu, "One Target Sketch based Face Sketch Synthesis," *Chinese Patent Pending*, No. 201510109196.2, 2015.
- [11] Nannan Wang, Xinbo Gao, Shengchuan Zhang, Jie Li, Feng Wang, Xinye Yu, Mingjin Zhang, Chunlei Peng, and Yanting Hu, "Single Photo-Sketch Pair based Face Sketch Synthesis," *Chinese Patent Pending*, No. 201510109027.9, 2015.

AWA:	RDS
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Special Scholarship from China Internet Development Foundation	2016
National Scholarship from Ministry of Education	2015
Outstanding Graduate Student, Xidian University	2014
First-Class Graduate Scholarship for PhD candidate, Xidian University	2014
Second-Class Graduate Scholarship for PhD candidate, Xidian University	2013
Outstanding Undergraduate Thesis, Xidian University	2012
Third Prize in ACM-ICPC, Xidian University	2011
Outstanding Student, Xidian University	2009

PROFESSIONAL Review for a number of journals and conferences;

ACTIVITY

SKILLS Proficient in Python, Matlab, C/C++, Qt, OpenCV, Latex; Familiar with Java