Yun Gu

PERSONAL DETAILS

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EDUCATION

Visiting Student 2016–present

Imperial College London, London, UK

PhD. Biomedical Engineering

2015-present

Shanghai Jiao Tong University, Shanghai, China

Thesis Title: Discriminative Feature Learning for Medical Image Analysis

MEng. Automation 2013–2015

Shanghai Jiao Tong University, Shanghai, China

Thesis Title: Multimodal Feature Analysis for Image Understanding

BEng. Automation 2009–2013

Xi'an Jiao Tong University, Shanxi, China

SKILLS

Languages Chinese (mother tongue), English (IELTS 7.0)

Programming Matlab, C++, Python Frameworks OpenCV, PyTorch, ITK

RESEARCH EXPERIENCE

PhD student 2015.9-present

Shanghai Jiao Tong University

Project: Discriminative Feature Learning for Medical Image Analysis

^{*} The expected graduation date of my PhD is 2019.6.

- Multimodal domain adaptation for endomicroscopy image retrieval and classification
- Deep learning for surgical thread detection
- Error-driven adaptive learning for cardiac anatomy segmentation

MEng Project

2013.09-2015.09

Shanghai Jiao Tong University

Project: Large-scale Multimedia Retrieval and Recognition

- Developed a video hashing algorithm based recurrent neural network
- Developed a multimodal hashing algorithm with incomplete views
- Developed an image annotation framework exploiting visual and textual saliency

Undergraduate Project

2013.01-2013.06

Xi'an Jiao Tong Unviersity

Project: Smartgrid Cyber Security

• Developed a fraud data detection algorithm for malicious attack in smart grid.

CONFERENCES

IEEE/RSJ IROS 2018, Spain	2018
IEEE/RSJ International Conference on Intelligent Robots and Systems	
MICCAI 2018, Spain	2018
International Conference on Medical Image Computing and Computer Assisted Intervention	
MICCAI 2017, Canada	2017
International Conference on Medical Image Computing and Computer Assisted Intervention	
ACM MM 2016, Netherlands	2016
ACM Multimedia Conference	
IEEE CVPR Workshop 2016, USA	2016
International Conference on Computer Vision and Pattern Recognition	

PUBLICATIONS

<u>Gu, Y.</u>, Vyas, K., Yang, GZ., "Transfer Recurrent Feature Learning for Endomicroscopy Image Classification", *IEEE Transactions on Medical Imaging*, 2018.

 $\underline{\text{Gu, Y.}},$ Xue, H., Yang, J., "Cross-modal saliency correlation for image annotation", $\overline{\textit{Neural Processing Letters}}$, 2017.

Gu, Y., Li, Q., Qian, X., "Image Annotation by Latent Community Detection and Multiple Kernel Learning", *IEEE Transactions on Image Processing*, 2015.

Gu, Y., Yang, H., Zhang, L., Yang, J., Yang, GZ., "Cross-scene Suture Thread Parsing

- for Robot Assisted Anastomosis based on Joint Representation Learning", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2018.
- Gu, Y., Vyas, K., Yang, J., Yang, GZ., "Weakly-supervised Representation Learning for Endomicroscopy Image Analysis", *International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)*, 2018.
- Gu, Y., Vyas, K., Yang, J., Yang, GZ., "Unsupervised Feature Learning for Endomicroscopy Image Retrieval", International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI), 2017.
- Gu, Y., Yang, J., Yang, GZ., "Multi-View Multi-Modal Embedding for Endomicroscopy Mosaics Classification", *IEEE CVPR Workshop on Computer Vision for Microscopy Image Analysis*, 2016.
- $\underline{\text{Gu, Y.}}$, Ma, C., Yang, J., "Supervised Recurrent Hashing for Large Scale Video Retrieval", \overline{ACM} Multimedia , 2016.
- Gu, Y., Xue, H., Yang, J., "Cross-modality Hashing with Partial Correspondence", *IEEE International Conference on Image Processing*, 2015.
- <u>Gu, Y.</u>, Xue, H., Yang, J., "Automatic Image Annotation Exploiting Visual and Textual Saliency", *International Conference on Neural Information Processing*, 2014.
- <u>Gu, Y.</u>, Liu, T., Wang, D., "Bad Data Detection Method for Smart Grid Based on Distributed State Estimation", *International Conference on Communications*, 2013.
- <u>Gu, Y.</u>, Vyas, K., Yang, GZ., "Deep Active Learning for Biomedical Image Analysis with Diverse-level Experts", *IEEE Transactions on Image Processing* (Under Review), 2018.
- <u>Gu, Y.</u>, Vyas, K., Yang, GZ., "Deep Multimodal Feature Embedding for Endomicroscopy Image Retrieval", *IEEE Transactions on Cybernetics* (Under Review), 2018.
- Hu, Y.* <u>Gu, Y.*</u>, Yang, GZ., "Multi-stage Learning for Surgical Thread Detection", *IEEE International Conference on Robotics and Automation (ICRA)* (**Equal Contribution)**, 2018.