Jingwei Guo

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EDUCATION

Xi'an Jiaotong-Liverpool University *Suzhou, China*
Bachelor of Science, Applied Mathematics *2014 - 2018*
University of Liverpool *Suzhou, China*
Bachelor of Science, Applied Mathematics *2014 - 2018*
Academics: GPA(WES): 3.86/4.00

RESEARCH INTEREST

My research interests are deep learning and computer vision. Currently, I am interested in deep learning model in re-identification, image caption, and image segmentation.

PROFESSIONAL EXPERIENCE

Research Assistant *XJTLU&Sano Medical Laboratories,Inc., Suzhou, China*
Chromosome Segmentation *Sep. 2018 - present*

- Design an data annotation method to reduce the workload of the company.
- Propose a series of image pre-processing algorithms to clean the raw data from the company.
- Build an automatic deep learning based chromosome segmentation model.
- Manage Linux system server.

Research Project *XJTLU, Suzhou, China*
Vehicle Re-identification *Sep. 2017 - Jun. 2018*

- Adopted center loss in deep representation learning model to solve the vehicle re-identification issues.
- Summarised the result obtained on the modified model into a paper ready for submitting into ICME 2019.

Research Intern *XJTLU, Suzhou, China*
Summer Undergraduate Research Fellow (SURF) *Jun. 2017 - Aug. 2017*

- Applied attention based long-short-term-memory model on indoor action recognition in TensorFlow via Python.
- Shared a repository of the implemented codes in GITHUB.
- Delivered a poster presentation in SURF project exhibition.

Studying Group *XJTLU, Suzhou, China*
Deep Learning Study Group *Apr. 2017 - Jun. 2017*

- Group study on the mathematical working mechanisms of GAN, VAE, LSTM and the applications once a week supervised by Professor Bailing Zhang (XJTLU).

Research Project *XJTLU, Suzhou, China*
Pathological Fiber Extraction on Mice Lung's slices *Sep. 2016 - Dec. 2016*

- Analyzed the filtered image to design a thresholding based image extraction algorithm in LAB color space.
- Designed an optimized algorithm exclusively for removing the overexposure on the binary image obtained by the proposed thresholding based method and a GUI for essential parameters' selection.
- Applied a patent in STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.C.

Research Project *XJTLU, Suzhou, China*
Wound Segmentation *Jul. 2016 - Aug. 2016*

- Designed a k-means based pre-segmentation algorithms on chromatic images in LAB color space.
- Developed an optimized algorithms exclusively for refining the binary image obtained via the designed k-means based algorithms.

Research Intern *XJTLU, Suzhou, China*
Summer Undergraduate Research Fellow (SURF) *June. 2016 - Aug. 2016*

- Modified the traditional active contour model by designing two self-adaptive coefficients and a new optimization method.
- Applied the designed algorithm on Tongue Segmentation in binary image and summarized it into a conference paper.
- Invited to attend IEEE conference (CISP-BMEI 2016) as the first author and delivered a presentation.

PUBLICATIONS & PATENTS

(Under Review) Sun, H., Su, J., **Guo, J.**, and Yang, Y. LAB based collagen fibers image recognition methodology and system, STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.C. Request Number: 20170684074.5.

Guo, J., Yang, Y., Wu, Q., Su, J. and Ma, F., Adaptive active contour model based automatic tongue image segmentation IEEE conference. International Congress on Image and Signal Processing, BioMedical Engineering and Informatics, 2016. CISP-BMEI 2016.

SKILLS

Python, Matlab, Java, LATEX, TENSORFLOW, KERAS, Linux