Xiaoyuan Guo Email : xiaoyuan.guo@emory.edu
https://xiaoyuanguo.github.io/website/

Education

- **Emory University** Atlanta, GA
  PhD of Computer Science *Aug. 2017 – Present*
- **University of Chinese Academy of Sciences** Beijing, China
  Master of Industry Engineering; GPA: 3.66 *Sept. 2014 – Jun. 2017*
- **Tianjin University of Technology** Tianjin, Beijing
  Bachelor of Department of Computer Science and Communication Technology; GPA: 3.84 *Sept. 2010 – Jun. 2014*

Research Interests

- **Computer Vision**
  Object Detection, Image Segmentation, 3D Reconstruction
- **Medical Image Analysis**
  Biomedical Image Analysis, Whole-Slide Microscopy Image Analysis, Machine Learning

Experience

- **Biomedical Imaging Informatics Laboratory, Emory University** Atlanta, GA
  Liver Steatosis Detection and Segmentation with Large-scale Microscopy Imagery *Apr.2018 - Jun.2018*
  - **Tools**: Tensorflow, Keras, Python, Matlab
  - **Main Task**: Detect and segment liver steatosis from the whole-slide tissue image, especially segment the clustered steatosis to facilitate the steatosis number counting and acquirement of the average size information, which can be used to predict the situation of the disease.
  - **Results**: Great segmentation results were achieved. Results can be seen **here**.
- **Biomedical Imaging Informatics Laboratory, Emory University** Atlanta, GA
  Clumped Nuclei Segmentation in Fluorescence Microscopy Images *Oct.2017 - Feb.2018*
  - **Tools**: Matlab, Python
  - **Main Task**: Segment the clustered nuclei occurred in the fluorescence microscopy images, develop an efficient segmentation algorithm to solve the under-segmentation problem.
  - **Results**: Better segmentation than other algorithms, the paper(Clumped Nuclei Segmentation with Adjacent Point Match and Local Shape-Based Intensity Analysis in Fluorescence Microscopy Images) is accepted by EMBC2018, oral.
- **Department of Math and Computer Science, Emory University** Atlanta, GA
  Teaching Assistant *Jan. 2018 - May. 2018*
  - **Teaching Assistant - Introduction of Computer Science(I)**: The course was for undergraduate students to learn basic coding skills and data structure, with more than 200 students enrolled. Involved in grading assignment, exams and answering questions both online and meeting during the office time.
- **Engineering Computing Center, School of Engineering Science, UCAS** Beijing, China
  Hole Filling Algorithm in Point Clouds *May. 2016 - March.2017*
  - **Tools**: Visual Studio 2017, QT, Pcl, C++
  - **Main Task**: Work for an efficient algorithm for filling holes in point clouds, especially for the scanned terrain point clouds.
  - **Results**: Good filling results. A paper (A survey on algorithms of hole filling in 3D surface reconstruction) was published.

Publications

- **1**: **Xiaoyuan Guo**, Hanyi Yu, Blair Rossetti, George Teodoro, Daniel Brat, Jun Kong. Clumped Nuclei Segmentation with Adjacent Point Match and Local Shape-Based Intensity Analysis in Fluorescence Microscopy Images[C]//EMBC,2018. (Oral)
- **2**: **Xiaoyuan Guo**, Jun Xiao, Ying Wang. A survey on algorithms of hole filling in 3D surface reconstruction[J]// The Visual Computer,2016.
- **3**: Jiali Duan, Shengcai Liao, **Xiaoyuan Guo**, Stan Z. Li. Face Detection by Aggregating Visible Components. ACCV Workshop 2016.