Yuan Zhang

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https://yuanzhang7.github.io/

Education

- **Southeast University** Nanjing, China
  PhD Computer Science and Technology, Third year 2021-now
- **Imperial College London** London, UK
  MSc Biomedical Engineering, Medical Physics and Imaging pathway 2019-2020
  - Core modules: Biomedical Imaging, Advanced Physiological Monitoring and Data Analysis, Image Processing, Mathematical Methods for Bioengineers (Python) , etc.
  - Merit Degree
- **Northwestern Polytechnical University** Xi'an, China
  BEng Electronics and Information Engineering 2015-2019
  - Core modules: Signals and Systems, Communication Theory, Probability and Random Process Digital Signal Processing, Information Theory, Machine Vision and Artificial Intelligence, etc.
  - GPA: 14/133, Granted qualification for recommended graduate admission

Publication

- **Yuan Zhang**, Yaolei Qi, Xiaoming Qi, Lotfi Senhadji, et al., "FedSODA: Federated Cross-assessment and Dynamic Aggregation for Histopathology Segmentation." arXiv preprint arXiv:2312.12824. *ICASSP*, 2024, Accepted.
- Yaolei Qi, Yuting He, Xiaoming Qi, **Yuan Zhang**, et al., "Dynamic snake convolution based on topological geometric constraints for tubular structure segmentation." In *Proceedings of the IEEE/CVF International Conference on Computer Vision*, pp. 6070-6079. 2023.
- Wang, Rong, Zhongxun Shi, **Yuan Zhang**, Minghui Duan, et al., "Development and Validation of Deep Learning Model for Diagnosis and Subtypes Differentiation of Myeloproliferative Neoplasms Using Clinical Data and Digital Pathology." Blood 142 (2023): 123. **Oral**.
- **Yuan Zhang**, Andrew Scott, et al., "Assessing the minimum SNR required to detect small focal lesions in diffusion tensor CMR." *The 24th Annual Scientific Sessions of Society for Cardiovascular Magnetic Resonance (SCMR)*, 2021, Poster.

Research Project

- **Morphological feature extraction of the left ventricle from CTA images** 2019
  - segmented left ventricular with Medviso and built a handcrafted GUI interface
  - realised transformation of coordinates and registered left ventricle diastolic and systolic phases
- **National University Student Innovation Program** 2018
  Project: Obstacle detection based on visual saliency
  - implemented image processing algorithm of camera calibration, Harris corner detection ,etc.
  - built 30000 typical datasets through web crawlers and realised saliency detection for obstacles

Honor

- CSC scholarship for a visiting PhD student at the University of Toronto 2023
- Graduate Academic Scholarship 2022-2023
- Outstanding Student Scholarship for three consecutive years 2016-2019

Internship

- Medical image Engineer, *Tenoke, Cambridge, UK - Nanjing, China* 2021
- Ultrasound System Engineer Internship, *Esaote, Italy - Shenzhen, China* 2020

Activity

- Student demonstrators for Mathematics of Planet Earth Exhibition, London 2020
- Volunteer for sunlight project (taught pupils Mathematics and English) 2018