Daochang Liu

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Education

Peking University, Beijing, China 2017.9 – 2022.6

Ph.D. at School of Computer Science
National Engineering Research Center of Visual Technology (NELVT)
Supervisors: Yizhou Wang & Tingting Jiang

Tongji University, Shanghai, China 2013.9 – 2017.7

B.E. at School of Software Engineering

Uppsala University, Uppsala, Sweden 2015.8 – 2016.1

Exchange Student at Department of Information Technology

PhD Research Field

Artificial Intelligence & Computer Vision: Deep Learning, Video Understanding, Action Recognition

Surgical Data Science: Surgical Skill Assessment, Surgical Event Detection, Surgical Tool Recognition

Publications

- ***Daochang Liu***, *Qiyue Li, Tingting Jiang, Yizhou Wang, Rulin Miao, Fei Shan, Ziyu Li*. 2021.
  Towards Unified Surgical Skill Assessment.
  IEEE/CVF Conference on Computer Vision and Pattern Recognition **(CVPR)**
- ***Daochang Liu****, *Yuhui Wei**, *Tingting Jiang, Yizhou Wang, Rulin Miao, Fei Shan, Ziyu Li*. 2020.
  Unsupervised Surgical Instrument Segmentation via Anchor Generation and Semantic Diffusion.
  International Conference on Medical Image Computing and Computer Assisted Intervention **(MICCAI)**
- ***Daochang Liu***, *Tingting Jiang, Yizhou Wang, Rulin Miao, Fei Shan, Ziyu Li*. 2020.
  Clearness of Operating Field: A Surrogate for Surgical Skills on In-Vivo Clinical Data.
  International Journal of Computer Assisted Radiology and Surgery **(IJCARS)**. Vol.15, pp.1817-1824.
- ***Daochang Liu***, *Tingting Jiang, Yizhou Wang*. 2019.
  Completeness Modeling and Context Separation for Weakly Supervised Temporal Action Localization.
  IEEE/CVF Conference on Computer Vision and Pattern Recognition **(CVPR)**
- ***Daochang Liu***, *Tingting Jiang, Yizhou Wang, Rulin Miao, Fei Shan, Ziyu Li*. 2019.
  Surgical Skill Assessment on In-Vivo Clinical Data via the Clearness of Operating Field.
  International Conference on Medical Image Computing and Computer Assisted Intervention **(MICCAI)**
- ***Daochang Liu***, *Tingting Jiang*. 2018.
  Deep Reinforcement Learning for Surgical Gesture Segmentation and Classification.
  International Conference on Medical Image Computing and Computer Assisted Intervention **(MICCAI)**
- *Tingting Jiang, Ziyu Li,* ***Daochang Liu***, *Qiyue Li, Yizhou Wang, Rulin Miao, Fei Shan*. 2021.
  Surgical Skill Assessment Method and Device.
  China Patent (Applying)

Honors and Awards

- Peking University Tianchuang Scholarship (2021), Peking University Merit Student (2021)
- Microsoft Research Asia Fellowship Nomination (2020), Peking University Principal's Scholarship (2019)
- Peking University Academic Innovation Award (2019), Shanghai Outstanding Bachelor Graduate (2017)

Academic Services

- Program Committee or Reviewer of CVPR, NeurIPS, BMVC, AAAI, ICLR, MICCAI, TPAMI, TMI, TMM