

孟云龙

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教育背景

香港中文大学 | 机械与自动化工程

课程成绩: 3.65/4.0

博士

2014 ~ 2019

华中科技大学 | 生物医学工程

课程成绩: 3.45/4.0

硕士

2011 ~ 2014

华中科技大学 | 生物医学工程

课程成绩: 3.62/4.0 | 排名: 12/137

本科

2007 ~ 2011

工作经历

上海眼控科技股份有限公司

主任研究科学家

上海眼控科技股份有限公司

研究员

Jan 2022 ~ Present

上海

May 2019 ~ Jan 2022

上海

研究方向

计算机视觉和图像处理

- 生成对抗网络
- 图像到图像的变换
- 跨域目标检测
- 医学图像处理

计算光学

- 计算光学/计算摄影
- 结构光照明成像

项目

跨域目标检测

2020年06月 ~ 至今

- 基于少样本图像到图像转换的少样本跨域目标检测
- 基于多模态图像到图像转换的跨域目标检测
- 基于金字塔对偶对比学习的图像到图像转换的跨域目标检测

生成对抗网络和图像到图像的翻译

2020年01月 ~ 至今

- 多模态图像到图像的翻译
- 少样本图像到图像的翻译

视频预测

2019年05月 ~ 2019年10月

- 基于生成对抗网络的雷达回波图预测

能见度预测

2019年9月 ~ 2020年二月

- 基于多步长短期记忆的能见度预测

超分辨率结构光照明图像重建

2015年7月 ~ 2018年12月

- 更少的原始图像的超分辨率结构光照明图像重建

时域聚焦显微镜

2014年10月 ~ 2017年12月

- 二次快照结构光照明增强时域聚焦显微的轴向分辨率和信噪比

细胞检测与分割

2012年 ~ 2014年

- 基于凹点检测和随机游走算法的细胞检测与分割

Journal Publications

- Chen, Jialong, Songyun Gu, **Yunlong Meng**, Zhiqiang Fu, and Shih-Chi Chen. "Holography-based structured light illumination for temporal focusing microscopy." *Optics Letters* 46, no. 13 (2021): 3143-3146.
- Lin, Wei, Dongping Wang, **Yunlong Meng**, and Shih-Chi Chen. "Multi-focus microscope with HiLo algorithm for fast 3-D fluorescent imaging." *Plos one* 14, no. 9 (2019): e0222729.
- **Yunlong Meng**, Wei Lin, Chenglin Li, and Shih-chi Chen. "Fast two-snapshot structured illumination for temporal focusing microscopy with enhanced axial resolution." *Optics Express* 25, no. 19 (2017): 23109-23121.
- Dongping Wang, **Yunlong Meng**, Dihan Chen, Yeung Yam, and Shih-Chi Chen. "High-speed 3D imaging based on structured illumination and electrically tunable lens." *Chinese Optics Letters* 15, no. 9 (2017): 090004. (Invited paper)
- Yong He⁺, **Yunlong Meng**⁺, Hui Gong, Shangbin Chen, Bin Zhang, Wenxiang Ding, Qingming Luo, and Anan Li. "An automated three-dimensional detection and segmentation method for touching cells by integrating concave points clustering and random walker algorithm." *PLoS One* 9, no. 8 (2014): e104437. (+Co-first author)
- Wenxiang Ding, Anan Li, Jingpeng Wu, Zhongqing Yang, **Yunlong Meng**, Simin Wang, and Hui Gong. "Automatic macroscopic density artefact removal in a Nissl-stained microscopic atlas of whole mouse brain." *Journal of Microscopy* 251, no. 2 (2013): 168-177.

Conference publications

- **Yunlong Meng**⁺, Lifan Zhao⁺, and Lin Xu. "Unsupervise Image-to-Image translation with Patch Pyramid Dual Contrastive Learning for Cross Domain Detection." *ICME 2022* (+Co-first author)
- Lifan Zhao⁺, **Yunlong Meng**⁺, and Lin Xu. "OA-FSUI2IT: A Novel Few-Shot Cross Domain Object Detection Framework with Object-Aware Few-Shot Unsupervised Image-to-Image Translation." *AAAI 2022* (+Co-first author)
- **Yunlong Meng**, Fengliang Qi, Heng Zuo, Bo Chen, Xian Yuan, and Yao Xiao. "Multi-step LSTM prediction model for visibility prediction." *IJCNN 2020*
- **Yunlong Meng**, Wei Lin, Jialong Chen, Chenglin Li, and Shih-Chi Chen. "Fast Two-snapshot Structured Illumination for Wide-field Two-photon Microscopy with Enhanced Axial Resolution and Signal-to-noise Ratio." *CLEO 2019*
- **Yunlong Meng**, Yong He, Jingpeng Wu, Shangbin Chen, Anan Li, and Hui Gong. "Automatic detection and quantitative analysis of cells in the mouse primary motor cortex." *PIBM 2014*
- **Yunlong Meng**⁺, Lifan Zhao⁺, and Lin Xu. "Diversity Augmented Conditional Generative Adversarial Network for Enhanced Multimodal Image-to-Image Translation." *ACCV 2022* in submission (+Co-first author)

Patents

- Shih-Chi Chen, **Yunlong Meng**, and Jialong Chen. "Method for data acquisition and image processing for reconstructing a super-resolved image." U.S. Patent 10,909,701, issued February 2, 2021.

毕业论文

- 博士论文: Fast Structured Illumination for High-resolution Fluorescence Imaging
- 硕士论文: 尼氏染色鼠脑图像细胞自动检测和分割
- 本科毕业设计: 跨平台海量图像预处理程序开发

学术报告

- **Yunlong Meng**, Yina Chang, Wei Lin, and Shih-Chi Chen, "Super-resolution temporal focusing microscopy via multifocal structured illumination", SPIE Photonics West 2018, San Francisco, United States, January 27 – February 01, 2018
- **Yunlong Meng**, Wei Lin, and Shih-Chi Chen, "Fast two-snapshot structured illumination for temporal focusing microscopy with enhanced axial resolution", SPIE Photonics West 2018, San Francisco, United States, January 27 – February 01, 2018

AWARDS

专业卓越奖	2021年01月
上海眼控科技股份有限公司	
浦江人才	2020年10月
上海市科学与技术委员会	
Winner of the 2014 computational biology research proposal competition	2014年04月
Awarder: Qing Nie (Prof. at Dept. of mathematics, UC Irvine)	

本科优秀毕业生	2011年06月
华中科技大学	
学业优秀奖学金	2009年09月
华中科技大学	
体育优秀奖学金	2009年09月
华中科技大学	

TEACHING ASSISTANT

Introduction to Control Fall 2015	香港中文大学
<i>Lecturer: Prof. Yeung Yam</i>	
Advanced Robotics Fall 2017	香港中文大学
<i>Lecturer: Prof. Samuel Au</i>	
Mechanical Design Spring 2016 / Spring 2017	香港中文大学
<i>Lecturer: Prof. Shih-Chi Chen</i>	

技能

深度学习框架: Pytorch
编程工具: VSCode
编程语言: Python, C/C++
语言: 中文, 英语