



工作经历

北京邮电大学	北京, 中国
拔尖人才教授	2023年11月 – 今
大阪大学	大阪, 日本
特任助理教授	2022年4月 – 2023.10
OPPO日本研究院	横滨, 日本
算法实习生 导师: <i>Ahmed Boudissa</i>	2021年8月 – 2021年10月
奇虎360人工智能研究院	北京, 中国
算法实习生 导师: 谭平	2016年6月 – 2017年1月

教育背景

大阪大学	大阪, 日本
多媒体信息处理, 博士 导师: <i>Yasuyuki Matsushita</i> , 施柏鑫	2018年10月 – 2022年3月
电子科技大学	成都, 中国
信号与信息处理, 硕士 导师: 曾兵, 刘帅成	2015年9月 – 2018年7月
电子科技大学	成都, 中国
电子信息工程, 学士	2011年9月 – 2015年7月

获奖荣誉

International Conference on Network Infrastructure and Digital Content 最佳论文 (Top 1%)	2023年10月
Meeting on Image Recognition and Understanding 最佳学生论文 (Top 1%)	2020年4月
电子科技大学优秀毕业论文 (Top 3%)	2018年6月
电子科技大学优秀硕士毕业生 (Top 6%)	2018年6月
研究生国家奖学金 (Top 2%)	2017年10月
电子科技大学优秀毕业生 (Top 7%)	2015年9月

主持项目

国家自然科学基金优秀青年科学基金项目 (海外) 项目	2024 - 2027
阿里巴巴优酷PBR材质恢复 (主研: 70万)	2023年11月 - 2024年11月

代表性工作

(* Equal contribution, † Corresponding author.)

- [1] **Heng Guo***, Jieji Ren*, Feishi Wang*, Boxin Shi, Mingjun Ren, Yasuyuki Matsushita. “DiLiGenRT: A Photometric Stereo Dataset with Quantified Roughness and Translucency.” IEEE Conference on Computer Vision and Pattern Recognition. (**CVPR 2024**).
- [2] Yufei Han, **Heng Guo**[†], Koki Fukai, Hiroaki Santo, Boxin Shi, Fumio Okura, Zhanyu Ma, Yunpeng Jia. “NeRSP: Neural 3D Reconstruction for Reflective Objects with Sparse Polarized Images.” IEEE Conference on Computer Vision and Pattern Recognition. (**CVPR 2024**).
- [3] Feishi Wang*, Jieji Ren*, **Heng Guo***, Mingjun Ren, Boxin Shi. “DiLiGenT-Pi: Photometric Stereo for Planar Surfaces with Rich Details – Benchmark Dataset and Beyond.” International Conference on Computer Vision. (**ICCV 2023**).
- [4] Jun Hoong Chan, Bohan Yu, **Heng Guo**, Jieji Ren, Zongqing Lu, Boxin Shi. “ReLeaPS: Reinforcement Learning-based Illumination Planning for Generalized Photometric Stereo.” International Conference on Computer Vision. (**ICCV 2023**).
- [5] Jipeng Lv, **Heng Guo**[†], Guanying Chen, Jinxiu Liang, Boxin Shi. “Non-Lambertian Multispectral Photometric Stereo via Spectral Reflectance Decomposition.” International Joint Conferences on Artificial Intelligence (**IJCAI 2023**).

- [6] **Heng Guo**, Boxin Shi, Yasuyuki Matsushita. “Neural BRDF Plugin for Unsupervised Photometric Stereo.” IEEE International Conference on Network Intelligence and Digital Content (**IC-NIDC 2023 best paper**).
- [7] Feiran Li*, **Heng Guo***, Hiroaki Santo, Fumio Okura, Yasuyuki Matsushita. “Learning to Synthesize Photorealistic Dual-pixel Images from RGBD frames.” International Conference on Computational Photography (**ICCP 2023**).
- [8] Lilika Makabe, **Heng Guo**, Hiroaki Santo, Fumio Okura, Yasuyuki Matsushita. “Near-light Photometric Stereo with Symmetric Lights.” International Conference on Computational Photography. (**ICCP 2023**).
- [9] **Heng Guo**, Fumio Okura, Boxin Shi, Takuya Funatomi, Yasuhiro Mukaigawa, Yasuyuki Matsushita. “Multispectral Photometric Stereo for Spatially-Varying Spectral Reflectances.” International Journal of Computer Vision. (**IJCV 2022**).
- [10] **Heng Guo***, Zhipeng Mo*, Boxin Shi, Feng Lu, Sai-Kit Yeung, Ping Tan, Yasuyuki Matsushita. “Patch-based Uncalibrated Photometric Stereo under Natural Illumination.” IEEE Transactions on Pattern Analysis and Machine Intelligence. (**TPAMI 2021**).
- [11] **Heng Guo**, Fumio Okura, Boxin Shi, Takuya Funatomi, Yasuhiro Mukaigawa, Yasuyuki Matsushita. “Multispectral Photometric Stereo for Spatially-Varying Spectral Reflectances: A Well-posed Problem?” IEEE Conference on Computer Vision and Pattern Recognition. (**CVPR 2021**).
- [12] **Heng Guo**, Boxin Shi, Michael Waechter, Yasuyuki Matsushita. “Self-calibrating Near-light Photometric Stereo under Anisotropic Light Emission.” Meeting on Image Recognition and Understanding (**MIRU 2020 outstanding paper**).
- [13] **Heng Guo**, Shuaicheng Liu, Shuyuan Zhu, Heng Tao Shen, Bing Zeng. “View-Consistent MeshFlow for Stereoscopic Video Stabilization.” IEEE Transactions on Computational Imaging. (**TCI 2018**).
- [14] **Heng Guo**, Shuaicheng Liu, Tong He, Shuyuan Zhu, Bing Zeng, Moncef Gabbouj. “Joint Video Stitching and Stabilization from Moving Cameras.” IEEE Transactions on Image Processing (**TIP 2016**).
- [15] **Heng Guo**, Shuaicheng Liu, Shuyuan Zhu, Bing Zeng. “Joint Bundled Camera Paths for Stereoscopic Video Stabilization.” International Conference on Image Processing. (**ICIP 2016**) (Oral).

学术服务

- 期刊审稿人: IEEE TPAMI, IJCV
- 会议审稿人: CVPR, ECCV, ICCV
- 论坛报告人: 第22届日本信息科学与技术论坛 (情報科学技術フォーラム)