

## CV

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南京理工大学 控制科学与工程 博士

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## 教育及工作经历

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2023.07 至今 副教授  
南京大学（苏州）智能科学与技术学院

2020.06 – 2023.01 高级研究员（3D 人脸重建，神经渲染方向）  
腾讯优图实验室，上海

2015.09 – 2020.12 博士，控制科学与工程专业  
南京理工大学  
导师杨健教授

2018.12 - 2019.09 访问学者  
Multimedia and Human Understanding Group  
特伦托大学，意大利  
合作导师 Nicu Sebe

2011.09 - 2015.06 学士学位，信息与计算科学专业  
南京理工大学

## 研究领域

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计算机视觉，图形学和机器学习，主要集中在：

- **3D Face Reconstruction & Generation** 三维人脸重建与生成
- **Neural Rendering** 神经渲染
- **Multi-task Learning for Scene Understanding** 多任务场景理解
- **Domain Adaptation** 域迁移

## 发表文章

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一作论文：

1. **Zhenyu Zhang**, Renwang Chen, Weijian Cao, Ying Tai, Chengjie Wang, “[Learning Neural Proto-face Field for Disentangled 3D Face Modeling In the Wild](#)”, **CVPR 2023**
2. **Zhenyu Zhang**, Yanhao Ge, Ying Tai, Weijian Cao, Renwang Chen, Kunlin Liu, Hao Tang, Xiaoming Huang, Chengjie Wang, Zhifeng Xie and Dongjin Huang, “[Physically-guided Disentangled Implicit Rendering for 3D Face Modeling](#)”, **CVPR 2022**

3. **Zhenyu Zhang**, Yanhaoge, Ying Tai, Xiaoming Huang, Chengjie Wang, Hao Tang, Dongjin Huang, Zhifeng Xie, “[Learning to Restore 3D Face from In-the-Wild Degraded Images](#)”, **CVPR 2022**
4. Kun Wang\*, **Zhenyu Zhang\***, Zhiqiang Yan, Xiang Li, Baobei Xu, Jun Li and Jian Yang, “[Regularizing Nighttime Weirdness: Robust Self-supervised Monocular Depth Estimation in the Dark](#)”, **ICCV 2021**
5. **Zhenyu Zhang**, Yanhao Ge, Renwang Chen, Ying Tai, Yan Yan, Jian Yang, Chengjie Wang, Jilin Li, Feiyue Huang, “[Learning to Aggregate and Personalize 3D Face from In-the-Wild Photo Collection](#)”, **CVPR 2021**  
**Oral.**
6. **Zhenyu Zhang**, Yan Yan, Stephane Lathuiliere, Nicu Sebe, Elisa Ricci and Jian Yang, “[Online Depth Learning against Forgetting in Monocular Videos](#)”, **CVPR 2020**.
7. **Zhenyu Zhang**, Zhen Cui, Chunyan Xu, Nicu Sebe, Yan Yan and Jian Yang, “[Pattern-Affinitive Propagation across Depth, Surface Normal and Semantic Segmentation](#)”, **CVPR, 2019**
8. **Zhenyu Zhang**, Zhen Cui, Chunyan, Zequn Jie, Xiang Li and Jian Yang, “[Joint Task-Recursive Learning for RGB-D Scene Understanding](#)”, **TPAMI, 2019**
9. **Zhenyu Zhang**, Zhen Cui, Chunyan Xu, Zequn Jie, Xiang Li and Jian Yang, “[Joint Task-Recursive Learning for Semantic Segmentation and Depth Estimation](#)”, **ECCV 2018**.
10. **Zhenyu Zhang**, Chunyan Xu, Jian Yang, Junbin Gao and Zhen Cui, “[Progressive Hard-mining Network for Monocular Depth Estimation](#)”, **IEEE Transactions on Image Processing, 2018**.
11. **Zhenyu Zhang**, Chunyan Xu, Jian Yang, Ying Tai and Chen Liang, “[Deep Hierarchical Guidance and Regularization Learning for End-to-end Depth Estimation](#)”, **Pattern Recognition, 2018**

二作及其他:

1. Zhiqiang Yan, Kun Wang, Xiang Li, **Zhenyu Zhang**, Guangyu Li, Jun Li, Jian Yang, “[Learning Complementary Correlations for Depth Super-Resolution With Incomplete Data in Real World](#)”, **TNNLS 2022**.
2. Hanyu Xuan, **Zhenyu Zhang**, Yan Yan, “[Cross-Modal Attention Network for Temporal Inconsistent Audio-Visual Event Localization](#)”, **AAAI 2020**.
3. Zhiqiang Yan, Kun Wang, Xiang Li, **Zhenyu Zhang**, Jun Li, Jian Yang, “[RigNet: Repetitive image guided network for depth completion](#)”, **ECCV 2022**
4. Zhiqiang Yan, Xiang Li, Kun Wang, **Zhenyu Zhang**, Jun Li, Jian Yang, “[Multi-modal masked pre-training for monocular panoramic depth completion](#)”, **ECCV 2022**
5. Zhiqiang Yan, Kun Wang, Xiang Li, **Zhenyu Zhang**, Jun Li, Jian Yang, “[DesNet: Decomposed Scale-Consistent Network for Unsupervised Depth Completion](#)”, **AAAI 2023**
6. Ling Zhou, Zhen Cui, Chunyan Xu, **Zhenyu Zhang**, Chaoqun Wang, Tong Zhang, Jian Yang, “[Pattern-Structured Diffusion Network for Multi-task Learning](#)”, **CVPR 2020**.
7. Hanyu Xuan, Lei Luo, **Zhenyu Zhang**, Jian Yang, Yan Yan, “[Discriminative Cross-Modality Attention Network for Temporal Inconsistent Audio-Visual Event Localization](#)”, **TIP 2021**.

8. Chao Zhao, **Zhenyu Zhang**, Jian Yan, Yan Yan, “**Local-global feature for video-based one-shot person re-identification**”, **ICASSP 2020**.

## 项目经历

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- 2020 年至今：腾讯优图实验室 3D 人脸基底，包括 3D 人脸数据采集，模板注册，基底的构建和模型训练等，在多个公开数据集上取得最佳效果。在优图多个业务，如 2D 换脸，腾讯会议光照效果，优图&智平 2D、3D 数智人中使用。
- 2022 年至今：腾讯优图&智平数智人项目，设计算法基于小样本短视频视频，讲话音频、文字等，进行 2D 数字人的驱动。已确定 B 端客户需求 800-1000 个，预计业务总营收 4000-5000 万。
- 2022 年 9 月至今：腾讯优图&VIVO 自拍照片编辑项目，设计算法实现包括自拍照片的表情编辑，3D 姿态旋转，光照调节等。项目总营收 500 万。
- 2019 年 11 月至 2020 年 8 月，华为手机端深度 ToF 相机补全项目，设计算法对手机端深度相机进行去噪以及深度补全。

## 荣誉及获奖

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1. 2021 年度 CCF 优秀博士论文提名。
2. 2021 年度腾讯优图实验室 AI 布道师。
3. 2017~2018 博士研究生国家奖学金 (top 2%).
4. 2018~2019 博士研究生国家奖学金 (top 2%).