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研究兴趣	计算机图形学和计算机视觉: 深度生成式模型, 图像和视频编辑, 动作捕捉, 虚拟人, 人脸跟踪, 三维理解和重建, 物理模拟, 数据驱动动画生成, 过程式建模, 数字几何处理, 纹理合成	
教育背景	清华大学 博士, 高等研究院 2007 年 9 月至 2012 年 7 月 • 清华大学与微软亚洲研究院联合培养 • 专业方向: 计算机图形学 本科, 基础科学班 2004 年 9 月至 2007 年 8 月 • 数学物理方向 清华大学附属中学 教育部直属全国高中理科实验班 2001 年 9 月至 2004 年 8 月	
职业经历	快手科技 (Kuaishou Technology) • 研发经理/特效技术平台图形 AI 组负责人 2019 年 3 月至今 美国色拉布公司 (Snap Inc.) • 高级研究科学家 2018 年 6 月至 2019 年 2 月 • 高级研发工程师 2017 年 11 月至 2018 年 5 月 • 研发工程师 2016 年 11 月至 2017 年 11 月 美国动视公司 (Activision Publishing, Inc.) • 高级计算机视觉研发工程师 2015 年 7 月至 2016 年 11 月 美国南加州大学 (USC) • 计算机系博士后 2013 年 10 月至 2015 年 6 月 新西兰维塔数码 (Weta Digital) • 研发实习生 2014 年 6 月至 2014 年 8 月 加拿大英属哥伦比亚大学 (UBC) • 计算机系 IMAGER 组博士后 2012 年 9 月至 2013 年 9 月 微软亚洲研究院 (MSRA) • 网络图形组实习生 2012 年 3 月至 2012 年 7 月 法国国家信息与自动化研究所 (INRIA) • ALICE 组访问学生 2011 年 8 月至 2012 年 2 月 微软亚洲研究院 (MSRA) • 网络图形组实习生 2008 年 4 月至 2011 年 8 月	

论文发表

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- [39] Xingyu Chen, Yufeng Liu, **Chongyang Ma**, Jianlong Chang, Huayan Wang, Tian Chen, Xiaoyan Guo, Pengfei Wan, Wen Zheng. 2021. “Camera-Space Hand Mesh Recovery via Semantic Aggregation and Adaptive 2D-1D Registration”. Proceedings of the 34th IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 13274–13283.
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- [37] Xingjia Pan, Fan Tang, Weiming Dong, **Chongyang Ma**, Yiping Meng, Feiyue Huang, Tong-Yee Lee, Changsheng Xu. 2021. “Content-Based Visual Summarization for Image Collections”. IEEE Transactions on Visualization and Computer Graphics (TVCG), Vol 27, Issue 4, 2298–2312.
- [36] Yingying Deng, Fan Tang, Weiming Dong, Haibin Huang, **Chongyang Ma**, Changsheng Xu. 2021. “Arbitrary Video Style Transfer via Multi-Channel Correlation”. Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI), 1210–1217.
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- [32] Xingjia Pan, Yuqiang Ren, Kekai Sheng, Weiming Dong, Haolei Yuan, Xiaowei Guo, **Chongyang Ma**, Changsheng Xu. 2020. “Dynamic Refinement Network for Oriented and Densely Packed Object Detection”. Proceedings of the 33rd IEEE International Conference on Computer Vision and Pattern Recognition (CVPR, **Oral Presentation**), 11207–11216.
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- [30] Kekai Sheng, Weiming Dong, Menglei Chai, Guohui Wang, Peng Zhou, Feiyue Huang, Bao-Gang Hu, Rongrong Ji, **Chongyang Ma**. 2020. “Revisiting Image Aesthetic Assessment via Self-Supervised Feature Learning”. Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI, **Spotlight Presentation**), 5709–5716.

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- [5] **Chongyang Ma**, Nicholas Vining, Sylvain Lefebvre, Alla Sheffer. 2014. “Game Level Layout from Design Specification”. Computer Graphics Forum (Proceedings of Eurographics 2014), Vol 33, Issue 2, 95–104.
- [4] **Chongyang Ma**, Li-Yi Wei, Sylvain Lefebvre, Xin Tong. 2013. “Dynamic Element Textures”. ACM Transactions on Graphics (Proceedings of SIGGRAPH 2013), Vol 32, Issue 4, 90:1–90:10.
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博士论文

“基于纹理样本的几何与动态细节建模”，清华大学高等研究院，工学博士论文，2012年6月

专利

共申请 12 项美国专利（9 项已获授权）和 6 项中国专利。部分专利列表：

- [11] Kun Duan, Nan Hu, Linjie Luo, **Chongyang Ma**, Guohui Wang. “Real-Time Bokeh Effect”. US Patent 11,087,513 granted on Aug 10, 2021.
- [10] Shijie An, Yuan Zhang, **Chongyang Ma**. “Method, Device and Non-Transitory Computer Storage Medium for Processing Image”. US Patent 16/906,777 filed on June, 19, 2020.
- [9] Linjie Luo, **Chongyang Ma**, Zehao Xue. “Scaled Perspective Zoom on Resource Constrained Devices”. US Patent 10,757,319 granted on Aug 25, 2020.
- [8] **Chongyang Ma**, Kun Duan, Xing Mei, Nan Hu. “Systems, Devices, and Methods for Image Enhancement”. US Patent 10,742,899 granted on Aug 11, 2020.
- [7] Kun Duan, Daniel Ron, **Chongyang Ma**, Ning Xu, Shenlong Wang, Sumant Hanumante, Dhritiman Sagar. “Active Image Depth Prediction”. US Patent 10,672,136 granted on Jun 2, 2020.
- [6] Wan-Chun Ma, **Chongyang Ma**. “Systems and Methods for Automating the Animation of Blendshape Rigs”. US Patent 10,586,380 granted on Mar 10, 2020.
- [5] Wan-Chun Ma, **Chongyang Ma**. “Systems and Methods for Automating the Personalization of Blendshape Rigs Based on Performance Capture Data”. US Patent 10,573,065 granted on Feb 25, 2020.
- [4] **Chongyang Ma**, Xing Mei, Nan Hu, Kirk Ouimet. “Synthesizing Cloud Stickers”. US Patent 10,565,743 granted on Feb 18, 2020.
- [3] Nan Hu, Xing Mei, **Chongyang Ma**, Kun Duan. “Annotating an Image with a Texture Fill”. US Patent 10,430,987 granted on Oct 1, 2019.
- [2] Li-Yi Wei, **Chongyang Ma**, Xin Tong. “Discrete Element Texture Synthesis”. US Patent 8,698,829 granted on Apr 15, 2014.
- [1] Li-Yi Wei, **Chongyang Ma**, Baining Guo, Kun Zhou. “Motion Field Texture Synthesis”. US Patent 12/503,162, filed on Jul 15, 2009.

教学

美国南加州大学计算机系联合主讲

CSCI 599: 数字几何处理（2014 春季学期）

CSCI 420: 计算机图形学（2014 秋季学期）

学术活动

国际学术会议程序委员会成员：

- Shape Modeling International (SMI) 2018–2021
- Computer Animation and Social Agents (CASA) 2017–2021
- ACM SIGGRAPH Asia Technical Briefs and Posters 2019

- ACM Symposium on Interactive 3D Graphics and Games (I3D) 2015–2018
- ACM/Eurographics Symposium on Computer Animation (SCA) 2015, 2016
- Pacific Graphics 2015, 2016

国际学术会议和期刊论文评审：

- Neural Information Processing Systems (NeurIPS) 2020, 2021
- European Conference on Computer Vision (ECCV) 2020
- AAAI Conference on Artificial Intelligence (AAAI) 2020, 2021
- IEEE International Conference on Computer Vision (ICCV) 2019, 2021
- IEEE International Conference on Multimedia and Expo (ICME) 2019
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019–2021
- ACM SIGGRAPH 2013–2020
- ACM SIGGRAPH Asia 2013–2019, 2021
- Eurographics 2010, 2013–2018, 2020
- Pacific Graphics 2011, 2013, 2014, 2018
- Computer Graphics International (CGI) 2012
- CAD/Graphics 2013
- Asian Conference on Computer Vision (ACCV) 2016
- IEEE VR 2018
- ACM Transactions on Graphics
- IEEE Transactions on Image Processing
- IEEE Transactions on Visualization and Computer Graphics
- IEEE Computer Graphics and Applications
- Computer Graphics Forum (Wiley Blackwell)
- Computers & Graphics (Elsevier)
- Visual Informatics (Elsevier)
- The Visual Computer (Springer)
- Signal, Image and Video Processing (Springer)
- Journal of Computer Science and Technology (Springer)
- Journal of Electronic Imaging
- Journal of Computer Graphics Techniques

科研基金评审：

- Natural Sciences and Engineering Research Council of Canada (NSERC)

荣誉奖项	2010 年微软亚洲研究院“微软学者”奖学金
电影致谢名单	霍比特人 3：五军之战 （维塔数码，视觉特效）2014
游戏致谢名单	使命召唤：二战 （动视），2017 使命召唤：无限战争 （动视），2016 使命召唤：现代战争重制版 （动视），2016 Skylanders Battlecast （动视），2016

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