

Chongyang Ma

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RESEARCH INTERESTS	Computer graphics and computer vision: deep generative models, image/video manipulation, motion capture, human digitization, face tracking, 3D reconstruction, data-driven animation, procedural modeling, digital geometry processing, texture synthesis.	
EDUCATION	Tsinghua University , Beijing, China	
	Ph.D., Institute for Advanced Study, <ul style="list-style-type: none">• Major: Computer Science• Adviser: Prof. Baining Guo	Sep 2007 to Jul 2012
	B.S., Fundamental Science Class, <ul style="list-style-type: none">• Major: Mathematics and Physics	Sep 2004 to Jul 2007
	High School attached to Tsinghua University , Beijing, China	
	National Honored Science Class,	Sep 2001 to Aug 2004
WORK EXPERIENCE	Snap Inc. , U.S.A. <ul style="list-style-type: none">• Senior Research Engineer• Research Engineer	Nov 2017 to present Nov 2016 to Nov 2017
	Activision Publishing, Inc. , U.S.A. <ul style="list-style-type: none">• Senior Computer Vision Research Engineer	Jul 2015 to Nov 2016
	University of Southern California , U.S.A. <ul style="list-style-type: none">• Postdoctoral Scholar in Geometric Capture Lab	Oct 2013 to Jun 2015
	The University of British Columbia , Canada <ul style="list-style-type: none">• Postdoctoral Fellow in IMAGER Laboratory	Sep 2012 to Sep 2013
OTHER POSITIONS	Weta Digital , New Zealand <ul style="list-style-type: none">• Research and Development Intern	Jun 2014 to Aug 2014
	INRIA Nancy Grand-Est , France <ul style="list-style-type: none">• Visiting student in ALICE team	Aug 2011 to Feb 2012
	Microsoft Research Asia , China <ul style="list-style-type: none">• Research Intern in Internet Graphics group	Mar 2012 to Jul 2012 Apr 2008 to Aug 2011
PUBLICATIONS	[19] Fan Tang, Weiming Dong, Yiping Meng, Chongyang Ma , Fuzhang Wu, Xinrui Li and Tong-Yee Lee. 2018. “Image Retargetability”. arXiv:1802.04392, 1–11.	

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- [17] Alex Smith, Sven Pohle, Wan-Chun Ma, **Chongyang Ma**, Xian-Chun Wu, Yanbing Chen, Etienne Danvoye, Jorge Jimenez, Sanjit Patel, Mike Sanders and Cyrus A. Wilson. 2017. “Emotion Challenge: Building a New Photoreal Facial Pipeline for Games”. *Proceedings of the Digital Production Symposium (DigiPro)*, 8:1–8:2.
- [16] Sema Berkiten, Maciej Halber, Justin Solomon, **Chongyang Ma**, Hao Li and Szymon Rusinkiewicz. 2017. “Learning Detail Transfer based on Geometric Features”. *Computer Graphics Forum (Proceedings of Eurographics 2017, Best Paper Award Honorable Mention)*, Vol 36, Issue 2, 361–373.
- [15] Yong Zhang, Weiming Dong, **Chongyang Ma**, Xing Mei, Ke Li, Feiyue Huang, Bao-Gang Hu and Oliver Deussen. 2017. “Data-Driven Synthesis of Cartoon Faces Using Different Styles”. *IEEE Transactions on Image Processing (TIP)*, Vol 26, Issue 1, 464–478.
- [14] Wan-Chun Ma, Mathieu Lamarre, Etienne Danvoye, **Chongyang Ma**, Manny Ko and Cyrus Wilson. 2016. “Semantically-aware Blendshape Rigs from Facial Performance Measurements”. *SIGGRAPH Asia Technical Briefs*, 3:1–3:4.
- [13] Jonathan Palacios, **Chongyang Ma**, Weikai Chen, Li-Yi Wei and Eugene Zhang. 2016. “Tensor Field Design in Volumes”. *SIGGRAPH Asia Technical Briefs*, 18:1–18:4.
- [12] Yan Kong, Weiming Dong, Xing Mei, **Chongyang Ma**, Tong-Yee Lee, Siwei Lyu, Feiyue Huang and Xiaopeng Zhang. 2016. “Measuring and Predicting Visual Importance of Similar Objects”. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Vol 22, Issue 12, 2564–2578.
- [11] Liwen Hu, **Chongyang Ma**, Linjie Luo and Hao Li. 2015. “Single-View Hair Modeling Using A Hairstyle Database”. *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2015)*, Vol 34, Issue 4, 125:1–125:9.
- [10] Hao Li, Laura Trutoiu, Kyle Olszewski, Lingyu Wei, Tristan Trutna, Pei-Lun Hsieh, Aaron Nicholls and **Chongyang Ma**. 2015. “Facial Performance Sensing Head-Mounted Display”. *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2015)*, Vol 34, Issue 4, 47:1–47:9.
- [9] Pei-Lun Hsieh, **Chongyang Ma**, Jihun Yu and Hao Li. 2015. “Unconstrained Realtime Facial Performance Capture”. *Proceedings of the 28th IEEE International Conference on Computer Vision and Pattern Recognition (CVPR 2015)*, 1675–1683.
- [8] Liwen Hu, **Chongyang Ma**, Linjie Luo, Li-Yi Wei and Hao Li. 2014. “Capturing Braided Hairstyles”. *ACM Transactions on Graphics (Proceedings of SIGGRAPH Asia 2014)*, Vol 33, Issue 6, 225:1–225:9.
- [7] Liwen Hu, **Chongyang Ma**, Linjie Luo and Hao Li. 2014. “Robust Hair Capture Using Simulated Examples”. *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2014)*, Vol 33, Issue 4, 126:1–126:10.
- [6] **Chongyang Ma**, Haibin Huang, Alla Sheffer, Evangelos Kalogerakis and Rui Wang. 2014. “Analogy-Driven 3D Style Transfer”. *Computer Graphics Forum (Proceedings of Eurographics 2014)*, Vol 33, Issue 2, 175–184.

- ACM/Eurographics Symposium on Computer Animation (SCA) 2015, 2016
- Pacific Graphics 2015, 2016

Paper reviewer

- ACM SIGGRAPH 2013–2018
- ACM SIGGRAPH Asia 2013–2017
- Eurographics 2010, 2013–2018
- Pacific Graphics 2011, 2013, 2014
- Computer Graphics International 2012
- CAD/Graphics 2013
- Asian Conference on Computer Vision (ACCV) 2016
- IEEE VR 2018
- ACM Transactions on Graphics
- IEEE Transactions on Visualization and Computer Graphics
- IEEE Computer Graphics and Applications
- Computer Graphics Forum (Wiley Blackwell)
- Computers & Graphics (Elsevier)
- The Visual Computer (Springer)
- Signal, Image and Video Processing (Springer)
- Journal of Computer Science and Technology (Springer)
- Journal of Electronic Imaging

Grant reviewer

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

AWARDS	Microsoft Research Asia Fellowship , 2010
FILM CREDITS	The Hobbit: The Battle of the Five Armies (Weta Digital, Visual Effects), 2014
GAME CREDITS	Skylanders Battlecast (Activision), 2016 Call of Duty: Infinite Warfare (Activision), 2016 Call of Duty: Modern Warfare Remastered (Activision), 2016 Call of Duty: WWII (Activision), 2017
MEDIA REPORTS	[14] Activision’s Virtual Human ‘Emotion Challenge’ . <i>fxguide.com</i> [13] Activision: A Photoreal Facial Performance Pipeline for Games . <i>80 level</i> [12] Geometric Detail Transfer . <i>Two Minute Papers</i> [11] Videos: the best of Siggraph 2015’s technical papers . <i>cgchannel.com</i> [10] Performance driven facial animation . <i>fxguide.com</i> [9] Oculus VR figures out how avatars can mimic your facial expressions . <i>engadget.com</i> [8] Oculus can map your real-life expressions onto your VR avatar . <i>Wired</i> [7] Sensors Bring You Face to Face with Your Virtual Reality Avatar . <i>vice.com</i> [6] Oculus Rift hack transfers your facial expressions onto your virtual avatar . <i>Ars Technica</i> [5] Oculus Rift Hack Transfers Your Facial Expressions onto Your Avatar . <i>MIT Tech. Review</i> [4] Oculus Rift teams with researchers to produce ability to capture and display facial expressions . <i>TechXplore.com</i> [3] Martin Breidt on the Uncanny Valley & Facial Tracking within a VR Head-Mounted Display by Oculus Research . <i>Voices of VR Podcast</i>

[2] **L'Oculus Rift reproduit maintenant les expressions faciales.** *Le Monde* (in French)

[1] **Malen mit Zahlen.** *c't* 19/2011 (in German)

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