

Dingzeyu Li

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Current Employment

Adobe Research - Research Scientist 2018 - present

Education

Ph.D. in Computer Science 2018
Columbia University
Adobe Research Fellow
Advisor: Changxi Zheng

B.Eng. in Computer Engineering, Honors Research Track 2013
The Hong Kong University of Science and Technology (HKUST)
First Class Honor & Academic Achievement Medal (top 1% of the graduates)
Advisor: Chi-Keung Tang

Exchange Student in Computer Science 2012
Eidgenössische Technische Hochschule Zürich (ETH Zurich)

Publications

Dingzeyu Li, Timothy R. Langlois, Changxi Zheng
Scene-Aware Audio for 360° Videos
ACM Transactions on Graphics (SIGGRAPH), 2018

Dingzeyu Li, Avinash S. Nair, Shree K. Nayar, Changxi Zheng
AirCode: Unobtrusive Physical Tags for Digital Fabrication
ACM Symposium on User Interface Software and Technology (UIST), Papers, 2017
🏆 Best Paper Award
selected in the technical papers preview

Dingzeyu Li
Interacting with Acoustic Simulation and Fabrication
ACM Symposium on User Interface Software and Technology (UIST), Doctoral Symposium, 2017

Gabriel Cirio, **Dingzeyu Li**, Eitan Grinspun, Miguel A. Otaduy, Changxi Zheng
Crumpling Sound Synthesis
ACM Transactions on Graphics (SIGGRAPH Asia), 2016
selected in the technical papers trailer

Dingzeyu Li, David I.W. Levin, Wojciech Matusik, Changxi Zheng
Acoustic Voxels: Computational Optimization of Modular Acoustic Filters
ACM Transactions on Graphics (SIGGRAPH), 2016
selected in the technical papers trailer

Dingzeyu Li, Yun Fei, Changxi Zheng
Interactive Acoustic Transfer Approximation for Modal Sound
ACM Transactions on Graphics (presented at SIGGRAPH), 2016

Yin Yang, **Dingzeyu Li**, Weiwei Xu, Yuan Tian, Changxi Zheng
Expediting Precomputation for Reduced Deformable Simulation
ACM Transactions on Graphics (SIGGRAPH Asia), 2015

Dingzeyu Li, Qifeng Chen, Chi-Keung Tang
Motion-Aware KNN Laplacian for Video Matting
Proceedings of International Conference on Computer Vision (ICCV), 2013

Qifeng Chen, **Dingzeyu Li**, Chi-Keung Tang
KNN Matting
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2013

Qifeng Chen, **Dingzeyu Li**, Chi-Keung Tang
KNN Matting
Proceedings of Computer Vision and Pattern Recognition (CVPR), 2012

Awards and Honors

NVIDIA GTC Invited Poster	2018
ACM UIST Best Paper Award (3 awardees out of 324 submissions)	2017
ACM UIST Doctoral Symposium & Travel Grant	2017
Adobe Research Fellowship	2017
NVIDIA Graduate Fellowship Finalist	2017
Columbia CS Department Service Award	2017
Shapeways Education Grant on Computational Fabrication	2016
ICCV Student Travel Award	2013
HKUST Academic Achievement Medal	2013
HKUST CSE, ECE, and School of Engineering Scholarship	2009 - 2013
HKUST Dean's List	2009 - 2012
Best Idea Award and Mabuchi Motor Award in Asia-Pacific International Robocon, Thailand	2011
Champion in Asia-Pacific Robot Contest (ABU Robocon), Hong Kong	2011
HKUST University Scholarship	2009

Workshops, Posters, & Demos

Dingzeyu Li, Timothy R. Langlois, Changxi Zheng
Scene-Aware Audio for 360° Videos
NVIDIA GTC, Invited Poster, 2018

Dingzeyu Li, Timothy R. Langlois, Changxi Zheng
Scene-Aware Audio for 360° Videos
Tristate Workshop on Imaging and Graphics (TWIG), Posters, 2018

Dingzeyu Li
Interacting with Acoustic Simulation and Fabrication
ACM Symposium on User Interface Software and Technology (UIST), Doctoral Symposium Poster, 2017

Dingzeyu Li, David I.W. Levin, Wojciech Matusik, Changxi Zheng
Acoustic Voxels: Computational Optimization of Modular Acoustic Filters
Tristate Workshop on Imaging and Graphics (TWIG), Posters, 2016

Dingzeyu Li, David I.W. Levin, Wojciech Matusik, Changxi Zheng
Acoustic Voxels: Computational Optimization of Modular Acoustic Filters
Symposium on Computational Fabrication (SCF), Posters, 2016

Dingzeyu Li, Yun Fei, Changxi Zheng
Interactive Acoustic Transfer Approximation for Modal Sound
ACM SIGGRAPH Exhibitor Tech Talks & Sessions, Intel Exhibitor Sessions, 2014

Previous Experience

Columbia University - graduate researcher & teaching assistant	Aug. 2013 - 2018
Advisor: Changxi Zheng	
Adobe Research - research intern	2017
Advisors: Timothy Langlois, Danny Kaufman	
Columbia Makerspace - superuser	2016 - 2018
Advisor: Ioannis Kymissis	
Disney Research - research intern	2015
Advisors: David I.W. Levin, Wojciech Matusik	
HKUST - undergraduate research assistant	2010 - 2013
Advisor: Chi-Keung Tang	
HKUST - robotic engineer & robotics team coordinator	2009 - 2011
Advisors: Guyue Zhou, Zexiang Li	

Selected Media Coverage

3D Printing Air Pockets Physical Tagging: Aircode [3D Printing Industry]
Columbia researchers' AirCode system uses 3D printed air pockets for physical object tagging [3Ders.org]
Boffins back bubbles for better bonding with beautiful belongings [The Register / Emerging Tech]
Manipulating Sound with Building Blocks [Columbia Engineering]
2016: A Year in Review [Columbia Engineering]
Detangling the Complexity of Waves with Acoustic Voxels [Engineering.com]
Researchers create audio counterpart of QR codes, RFID tags [ScienceBlog]
Hippopotamus that sounds like a trumpet key to acoustic tagging [INAVATE]
Noisy Information - Embedding Data in Sound [Engineering.com]
Researchers Use Acoustic Voxels to Embed Sound with Data [Science Newsline Technology] [phys.rg]
Looking Toward Cloaking & Acoustic Tagging [3DPrint.com]
Columbia Engineering Researchers Use Acoustic Voxels to Embed Sound with Data [Columbia Engineering News] [Eurek Alert]
Acoustic voxels: Manipulating sound waves makes possible acoustic tagging and encoding [Columbia Computer Science Department News]

Teaching

Teaching assistant, <i>Advanced Computer Graphics</i> - Columbia University	Spring 2016
Guest lecturer, <i>Computer Graphics</i> - Columbia University	Spring 2015
Teaching assistant, <i>Advanced Computer Graphics</i> - Columbia University	Fall 2014
Teaching assistant, <i>Computer Graphics</i> - Columbia University	Spring 2014
Instructor, <i>Basics for Robotic Competition</i> - HKUST	Fall 2011
Lab assistant, <i>Introduction to Electro-Robot Design</i> - HKUST	Fall 2010

Advising

Henrique Maia, PhD student - Columbia University	2018 – present
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project: robust tagging in fabrication	
Sebastian Cueva-Caro, undergrad - Columbia University	2017 – 2018
project: mass optimization for 3D printing	
Jingyu Qian, MS student - Columbia University	2017 – 2018
project: acoustic lens design, simulation, and fabrication	
Cheng Zhang, MS student - Columbia University	2017
next stop: PhD student at University of California, Irvine	
project: acoustic lens sensing and circuit design	
Brandon Cui, visiting undergrad - Stanford University	2016
project: acoustic metamaterial design with Acoustic Voxels	
Vaibhav Siva Vavilala, undergrad (NSF REU Fellow) - Columbia University	2015
project: computer-assisted spray paint fabrication	
next stop: Pixar	

Department Service

Columbia Makerspace Superuser Volunteering	2016 – 2018
Prospective PhD student visit day volunteer	2014 – 2018
MS student admission reviewer	2014, 2017, 2018
Colloquium Czar	2014 – 2016
Tristate Workshop on Imaging and Graphics (TWIG) helper	2015

Professional Service

International Program Committee:

- CASA, International Conference on Computer Animation and Social Agents 2018
- Workshop on Virtual Reality meets Physical Reality at SIGGRAPH Asia 2016

Treasurer:

- ACM SIGGRAPH / Eurographics Symposium on Computer Animation (SCA) 2017

Reviewer for International Top Conferences & Journals:

CHI, Conference on Human Factors in Computing Systems	2018, 2019
IEEE Virtual Reality (TVCG)	2018, 2019
TEI, Conference on Tangible, Embedded, and Embodied Interactions	2019
SIGGRAPH	2016, 2017, 2018
SIGGRAPH Asia	2014, 2016, 2017, 2018
UIST, ACM Symposium on User Interface Software and Technology	2018
CVPR, Conference on Computer Vision and Pattern Recognition	2016, 2017, 2018
ECCV, European Conference on Computer Vision	2016, 2018
ACCV, Asian Conference on Computer Vision	2016, 2018
BMVC, British Machine Vision Conference	2017, 2018
CAVW, Computer Animation and Virtual Worlds	2018
ACM Transactions on Graphics	2017
ICCV, International Conference on Computer Vision	2015, 2017
CVIU, Computer Vision and Image Understanding	2017
VRST, Symposium on Virtual Reality Software and Technology, Posters & Demos	2017
ECCV, European Conference on Computer Vision	2016
JMIV, Journal of Mathematical Imaging and Vision	2016
Neurocomputing	2016

WSCG, World Society for Computer Graphics
Eurographics
Computers & Graphics

2015
2014
2013

References

Changxi Zheng (PhD advisor, 2013 - present)

Associate Professor, Department of Computer Science
Columbia University
cxz@cs.columbia.edu

Shree K. Nayar (research collaborator, 2016-2017)

T. C. Chang Professor, Department of Computer Science
Columbia University
nayar@cs.columbia.edu

David I.W. Levin (internship advisor, 2015)

Assistant Professor, Department of Computer Science
University of Toronto
diwlevin@cs.toronto.edu

Chi-Keung Tang (undergraduate research advisor, 2010 - 2013)

Professor, Department of Computer Science and Engineering
Hong Kong University of Science and Technology
cktang@cs.ust.hk