

# Dingzeyu Li

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## Education

Ph.D. in Computer Science Columbia University Adobe Research Fellow Advisor: Changxi Zheng	2018 (expected)
B.Eng. in Computer Engineering, Honors Research Track The Hong Kong University of Science and Technology (HKUST) First Class Honor & Academic Achievement Medal (top 1% of the graduates) Advisor: Chi-Keung Tang	2013
Exchange Student in Computer Science Eidgenössische Technische Hochschule Zürich (ETH Zurich)	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
First Place in Citadel Datathon New York	2017
Columbia CS Department Service Award	2017
Shapeways Education Grant on Computational Fabrication	2016
Winner of Microsoft College Code Competition (msft3c) at Columbia	2014
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
HKUST Lee Hysan Foundation Exchange Scholarship (awarded to 2 students in CS department)	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

## Publications

**Dingzeyu Li**, Timothy R. Langlois, Changxi Zheng  
*Scene-Aware Audio for 360° Videos*  
conditionally accepted to 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

**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

## Experience

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

## 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 Newslane 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 Robotics Competition</i> - HKUST	Fall 2011
Lab assistant, <i>Introduction to Electro-Robot Design</i> - HKUST	Fall 2010

## Advising

Sebastian Cueva-Caro, undergrad - Columbia University	2017 -present
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Jingyu Qian, MS student - Columbia University	2017 - present
Cheng Zhang, MS student - Columbia University	2017
next stop: PhD student at University of California, Irvine	
Brandon Cui, visiting undergrad - Stanford University	2016
Vaibhav Siva Vavilala, undergrad (NSF REU Fellow) - Columbia University	2015
next stop: Pixar	

## Department Service

Columbia Makerspace Superuser Volunteering	2016 – present
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

### Interactional 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
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### Reviewer for International Top Conferences & Journals:

SIGGRAPH	2016, 2017, 2018
CHI, Conference on Human Factors in Computing Systems	2018
Virtual Reality / Transactions on Visualization and Computer Graphics	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
SIGGRAPH Asia	2014, 2016, 2017
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	2015
Eurographics	2014
Computers & Graphics	2013

## References

**Changxi Zheng** (PhD advisor, 2013 - present)  
Associate Professor, Department of Computer Science  
Columbia University  
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**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