

IRA KEMELMACHER-SHLIZERMAN

Curriculum Vitae

Paul G. Allen School of Computer Science & Engineering
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Seattle, WA 98195

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EDUCATIONAL HISTORY

Weizmann Institute of Science, Rehovot, Israel
Ph.D., Computer Science and Applied Mathematics
2009

Dissertation: “3D Shape Reconstruction with Shading Information and Prior Knowledge”

Weizmann Institute of Science, Rehovot, Israel
M.Sc, Computer Science and Applied Mathematics
2004

Thesis: “Recognition with Unknown Illumination and Pose”

Bar-Ilan University, Ramat-Gan, Israel
B.Sc, Computer Science and Mathematics
2001

EMPLOYMENT HISTORY

Allen School, University of Washington, Seattle, WA, USA
Associate Professor, 2019-present

Google Inc., USA
Staff Research Scientist, Daydream, 2019-present

Allen School, University of Washington, Seattle, WA, USA
Assistant Professor, 2013-2019

Facebook Inc., Seattle, WA, USA
Research Scientist Computational Photography 2016-2018

Dreambit LLC, Seattle, WA, USA
Founder and CEO, 2016 (startup acquired by Facebook)

Google Inc., Seattle, WA, USA
Tech transferred Face Movies to Photos team, 6 months in 2010

Allen School, University of Washington, Seattle, WA, USA
Research Associate/PostDoc, 2009-2012

AWARDS AND HONORS

Tenured Associate Professor, Allen School, University of Washington, 2019
Dreambit LLC acquired, 2016, Facebook Inc.
Innovation of the Year, 2016, Geekwire
Madrona Prize, 2015, Madrona
Best paper runner up, 2015, FDG
Cover, ACM Research Highlights, 2014
Google faculty award, 2014, Google
Cover, 2011, SIGGRAPH
Face Movies Tech Transfer, 2011, Google Inc.

AFFILIATIONS AND OTHER APPOINTMENTS

Co-Director and Founder, UW Reality Lab, University of Washington, 2018-2019
Director of UW Reality Lab, UW, 2019-present

PUBLICATIONS

Co-authors key:

¹graduate student under my supervision.

²postdoc under my supervision

Fully refereed publications

1. Or-El, Roy¹, Soumyadip Sengupta², Ohad Fried, Eli Shechtman, and Ira Kemelmacher-Shlizerman. "Lifespan Age Transformation Synthesis", submitted, 2020.
2. Zhu, Luyang¹, Konstantinos Rematas, Brian Curless, Steve Seitz, and Ira Kemelmacher-Shlizerman. "Reconstructing NBA Players", submitted, 2020.
3. Sengupta, Soumyadip², Vivek Jayaram¹, Brian Curless, Steve Seitz, and Ira Kemelmacher-Shlizerman. "Background Matting: The World is Your Green Screen.", In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, 2020.
4. Weng, Chung-Yi¹, Brian Curless, and Ira Kemelmacher-Shlizerman. "Photo wake-up: 3d character animation from a single photo." In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, 2019.
5. Liang, Shu¹, Xiufeng Huang, Xianyu Meng, Kunyao Chen, Linda G. Shapiro, and Ira Kemelmacher-Shlizerman. "Video to Fully Automatic 3D Hair Model." SIGGRAPH ASIA, 2018

6. Shlizerman, Eli, Lucio Dery, Hayden Shochat, Ira Kemelmacher-Shlizerman, "Audio to Body Dynamics", In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, 2018.
7. Rematas, Konstantinos², Ira Kemelmacher-Shlizerman, Brian Curless, and Steve Seitz. "Soccer on Your Tabletop." In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, pp. 4738-4747. 2018.
8. Suwajanakorn, Supasorn¹, Steven M. Seitz, and Ira Kemelmacher-Shlizerman. "Synthesizing obama: learning lip sync from audio." ACM Transactions on Graphics (TOG) 36, no. 4 (2017): 95.
9. Nech, Aaron¹, and Ira Kemelmacher-Shlizerman. "Level playing field for million scale face recognition." In 2017 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 3406-3415. IEEE, 2017.
10. Kemelmacher-Shlizerman, Ira. "Transfiguring portraits." ACM Transactions on Graphics (TOG) 35, no. 4 (2016): 94.
11. Liang, Shu¹, Linda G. Shapiro, and Ira Kemelmacher-Shlizerman. "Head reconstruction from internet photos." In European Conference on Computer Vision, pp. 360-374. Springer, Cham, 2016.
12. Kemelmacher-Shlizerman, Ira, Steven M. Seitz, Daniel Miller¹, and Evan Brossard. "The megaface benchmark: 1 million faces for recognition at scale." In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, pp. 4873-4882. 2016.
13. Suwajanakorn, Supasorn¹, Steven M. Seitz, and Ira Kemelmacher-Shlizerman. "What makes tom hanks look like tom hanks." In Proceedings of the IEEE International Conference on Computer Vision, pp. 3952-3960. 2015.
14. Tuite, Kathleen¹, and Ira Kemelmacher. "The Meme Quiz: A Facial Expression Game Combining Human Agency and Machine Involvement." In FDG. 2015.
15. Liang, Shu¹, Ira Kemelmacher-Shlizerman, and Linda G. Shapiro. "3d face hallucination from a single depth frame." In 3D Vision (3DV), 2014 2nd international conference on, vol. 1, pp. 31-38. IEEE, 2014.
16. Kemelmacher-Shlizerman, Ira, Eli Shechtman, Rahul Garg, and Steven M. Seitz. "Moving portraits." Communications of the ACM 57, no. 9 (2014): 93-99.
17. Suwajanakorn, Supasorn¹, Ira Kemelmacher-Shlizerman, and Steven M. Seitz. "Total moving face reconstruction." In European Conference on Computer Vision, pp. 796-812. Springer, Cham, 2014.

18. Kemelmacher-Shlizerman, Ira, Supasorn Suwajanakorn¹, and Steven M. Seitz. "Illumination-aware age progression." In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, pp. 3334-3341. 2014.
19. Kemelmacher-Shlizerman, Ira. "Internet based morphable model." In Proceedings of the IEEE International Conference on Computer Vision, pp. 3256-3263. 2013.
20. Arie-Nachimson, Mica, Shahar Z. Kovalsky, Ira Kemelmacher-Shlizerman, Amit Singer, and Ronen Basri. "Global motion estimation from point matches." In 2012 Second International Conference on 3D Imaging, Modeling, Processing, Visualization & Transmission, pp. 81-88. IEEE, 2012.
21. Kemelmacher-Shlizerman, Ira, and Steven M. Seitz. "Collection flow." In Computer Vision and Pattern Recognition (CVPR), 2012 IEEE Conference on, pp. 1792-1799. IEEE, 2012.
22. Kemelmacher-Shlizerman, Ira, Eli Shechtman, Rahul Garg, and Steven M. Seitz. "Exploring photobios." In ACM Transactions on Graphics (TOG), vol. 30, no. 4, p. 61. ACM, 2011.
23. Kemelmacher-Shlizerman, Ira, and Steven M. Seitz. "Face reconstruction in the wild." In Computer Vision (ICCV), 2011 IEEE International Conference on, pp. 1746-1753. IEEE, 2011.
24. Kemelmacher-Shlizerman, Ira, and Ronen Basri. "3D face reconstruction from a single image using a single reference face shape." IEEE transactions on pattern analysis and machine intelligence 33, no. 2 (2011): 394-405.
25. Kemelmacher-Shlizerman, Ira, Aditya Sankar, Eli Shechtman, and Steven M. Seitz. "Being john malkovich." In European Conference on Computer Vision, pp. 341-353. Springer, Berlin, Heidelberg, 2010.
26. Kemelmacher-Shlizerman, Ira, Ronen Basri, and Boaz Nadler. "3D shape reconstruction of Mooney faces." In, IEEE Conference on Computer Vision and Pattern Recognition, pp. 1-8. 2008.
27. Basri, Ronen, David Jacobs, and Ira Kemelmacher. "Photometric stereo with general, unknown lighting." International Journal of Computer Vision 72, no. 3 (2007): 239-257.
28. Mahajan, Dhruv, Ira Kemelmacher Shlizerman, Ravi Ramamoorthi, and Peter Belhumeur. "A theory of locally low dimensional light transport." In ACM Transactions on Graphics (TOG), vol. 26, no. 3, p. 62. ACM, 2007.
29. Kemelmacher, Ira, and Ronen Basri. "Molding face shapes by example." In European Conference on Computer Vision, pp. 277-288. Springer, Berlin, Heidelberg, 2006.

30. Kemelmacher, Ira, and Ronen Basri. "Indexing with unknown illumination and pose." In, IEEE Conference on Computer Vision and Pattern Recognition, pp. 909-916. IEEE, 2005.

Parts of books (chapters in edited books)

1. Kemelmacher-Shlizerman, Ira, Ronen Basri, and Boaz Nadler. "3D Face Reconstruction from Single Two-Tone and Color Images." In Shape Perception in Human and Computer Vision, pp. 275-284. Springer, London, 2013.

Patents submitted and/or awarded

1. Transfiguring Portraits, I. Kemelmacher-Shlizerman, July 6,2016, US 62/358,749 (Assigned to Dreambit LLC, further assigned to Facebook Inc.)
2. Face and Expression Aligned Movies, S.M. Seitz, R. Garg, I. Kemelmacher, US 61/371,934, 2015 (Assigned to Google Inc.)
3. Example based 3D reconstruction, R. Basri, I. Kemelmacher, T. Hassner, US 60/750,054, 2009

Other significant research dissemination (web sites, software, Wikis, etc.)

1. Leading full cycle product (idea to research to production; 4M people/day)
2. [UW Reality Lab](#) is an open IP lab that advances research in virtual and augmented reality
3. MegaFace benchmark (million scale face recognition benchmark), <http://megaface.cs.washington.edu/>
4. Audio to Body Dynamics <https://github.com/facebookresearch/Audio2BodyDynamics>
5. Created "[Face Movies](#)" and tech transferred to Google Inc. It was shipped as part of Google's Picasa software and used by millions.
6. Founded startup Dreambit LLC which was acquired by Facebook Inc.
7. "[Learning Lip Sync from Audio](#)" videos have 1.5M views on YouTube
8. "[Face Movies](#)" has 1.5M views on YouTube
9. "[Illumination aware age progression](#)" has 315K views on YouTube
10. "[What makes Tom Hanks look like Tom Hanks](#)" videos have 500K views on YouTube

Selected Press Coverage

1. MIT Tech Review, "Machine vision can create Harry Potter–style photos for muggles", 12/2018
2. Gizmodo, "A New AI-Powered System Creates Impressive 3D Animations From Still Images", 12/2018
3. The New Yorker, "In the age of AI is seeing still believing", 11/2018
4. Engadget, "Facebook predicts music movement in AR", 06/2018
5. NVIDIA, "AI transforms recorded soccer games into 3D holograms", 06/2018
6. New Scientist, "Watch real football matches in miniature played on your desk", 06/2018
7. Reuters, "Live 3D soccer in 3D on your tabletop", 07/2018
8. Forbes, "Soccer On Your Tabletop: Will We Be Watching The Next World Cup in AR?" 06/2018
9. Science, "Watch artificial intelligence project a 3D soccer match on your kitchen table", 06/2018
10. TechCrunch, "Football matches land on your table thanks to augmented reality" 06/2018
11. Geekwire, "University of Washington opens virtual augmented reality research lab funded by tech giants" 01/2018
12. Xconomy, "Facebook, Google and Huawei fund new AR VR reality lab at UW", 01/2018
13. Seattle Times, "UW receives 6 million to create academic center for augmented and virtual reality", 01/2018
14. New York Times, "AI generated Photos", 01/2018
15. CNBC, "Facebook AI researchers figures out how to make avatars look like they're playing music", 12/2017
16. Geekwire, "Ira Kemelmacher-Shlizerman is geek of the week", 07/2017
17. Wall street journal, "The researchers who synthesized video of Barack Obama", 07/2017
18. CNN, "Obama Lip Sync", 07/2017
19. BBC, "Fake Obama create using an AI tool", 07/2017
20. The Atlantic, "What do you do when you cannot believe your own eyes", 07/2017
21. The Atlantic, "It's Bill Murray a facial recognition algorithm settles the debate" 10/2016
22. TechCrunch, "This amazing search engine automatically swaps you into your image", 07/2016
23. Engadget, "Dreambit search engine", 07/2016
24. Daily Mail, "The ultimate face swap", 07/2016
25. Geekwire, "Time for a change?", 07/2016
26. IEEE Spectrum, "One Million Face Challenge Even the Best Facial Recognition Algorithms", 07/2016
27. The Atlantic, "The Ultimate Face recognition algorithm", 06/2016
28. TechCrunch, "Facial recognition systems stumble when confronted with million face database", 06/2016
29. TechCrunch, "Students demonstrate their HoloLens apps after a quarter of VR and AR design", 06/2016
30. Geekwire, "The World's First Hololens class at UW", 06/2016
31. Geekwire, "Revealed: The winners of the 2016 Geekwire awards", 05/2016
32. MIT Tech Review, "Software reconstructs famous faces from still images captures their unique mannerisms" 11/2015
33. Geekwire, "Digital 3D face reconstruction technology wins top prizes at UW CSE" 10/2015

34. CBS, “Special episode on Aging Software”, 11/2014
35. Fox News, “How age progression helps find missing kids”, 10/2014
36. Inside Science, TV episode: Photos on Fast Forward, 10/2014
37. ACM, TV episode: Moving Portraits, 09/2014
38. NBC’s Today Show, What will I look like at 60? New computer program gives sneak peek, 05/2014
39. The Seattle Times (front page), What will you look like when you grow old? UW has software to show 05/2014
40. TV and radio interviews on NPR, KIRO TV, KOMO, KING5, KUOW on age progression 04/2014
41. Wired, Software shows your child’s future face 04/2014
42. KING5, Face age through time with Face Movies, 2011
43. New Scientist, Create an animated biography from your photos, 2011
44. MSNBC, Software traces faces through time 2011
45. CBS New photo software can morph faces like Michael Jackson’s black and white video 2011
46. Discovery news, Looking animated at your photos 2011
47. Geekwire, UW computer science project automates time lapse pictures 2011

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars

*excluding conferences, regular seminars, and teaching

1. Multi-modal learning from video workshop with CVPR’20, Keynote, 2020
2. International Conference on Computational Photography, “Computer Vision for Augmented Reality”, Keynote, 2020
3. Machines Can See, Keynote, Moscow, 07/2019
4. ICCV 2019 workshop on “Image and Video Synthesis: How and Why”, Speaker, Korea, 10/2019
5. Facebook AI Video Summit, Speaker, Los Angeles, 06/2019
6. International Conference on Computational Photography, “Computer Vision for Augmented Reality”, Keynote, Tokyo, 05/2019
7. IPAM Workshop on Geometric Processing, UCLA, Invited lecturer, “Computer Vision for Augmented Reality”, Los-Angeles, 04/2019
8. International Computer Vision Summer School, Sicily, Invited lecturer, “Computer Vision for Augmented Reality”, 06/2019
9. Dagstuhl seminar on morphable models, Invited lecturer, Dagstuhl, “3D face modeling” 03/2019
10. 100 years of Women, College of William & Mary, Distinguished Colloquium, “Computer Vision for Augmented Reality”, 03/2019
11. Distinguished Speaker Series, Max Planck Institute for Intelligent Systems, Germany, “Computer Vision for Augmented Reality”, 05/2019
12. Geekwire Summit, Invited speaker, power talk, Seattle, “Computer Vision for Augmented Reality”, 10/2018

13. Xconomy Napa Summit, Keynote, Napa, "UW Reality Lab", 06/2018
14. Fast Company Innovation Festival, New York, Invited speaker, "Face modeling from audio", 09/2018
15. Vision for XR ECCV workshop, Invited talk, Munich, "AR people", 09/2018
16. Machine Learning for 3D Understanding, Invited talk, Munich, "Computer Vision for Augmented Reality", 07/2018
17. Truth in Images, Videos and Graphics Workshop, Invited talk, "Video generation from audio", SIGGRAPH, 08/2018
18. Tel-Aviv University, Invited talk, Israel, "Computer Vision for Augmented Reality", 04/2018
19. UC Berkeley, Invited talk, CA, "Computer Vision for Augmented Reality", 05/2018
20. Stanford, Invited talk, CA, "Computer Vision for Augmented Reality", 05/2018
21. MIT, Invited talk, "Computer Vision for Augmented Reality", 05/2018
22. CVPR Area Chairs Workshop, Toronto, "Augmented Reality Sports", 02/2018
23. International Workshop on Computer Vision, Invited talk, Modena, Italy, "Computer Vision for Augmented Reality", 05/2018
24. Bridges to 3D, with CVPR, Invited talk, Salt-Lake City, "Computer Vision for Augmented Reality", 06/2018
25. Augmented Reality Visioning Workshop, Invited talk, Washington DC, "Computer Vision for Augmented Reality", 08/2018
26. Deep Learning Podcast, Invited talk, Montreal, "Ira Kemelmacher", 10/2017
27. TEDxVienna, Invited speaker, Vienna, "Modeling and Understanding Human Beings", 10/2017
28. Deep Learning Summit, Invited talk, Montreal, "Audio to Video Generation", 10/2017
29. Frontier in Video Technology, Adobe, Invited talk, San Jose, "Audio to Video Generation", 07/2017
30. LDV Vision Summit, Keynote, NYC, "How did university Professor Ira Kemelmacher-Shlizerman found and sell her startup to Facebook", 05/2017
31. TTI Chicago, Invited talk, Chicago, "3D Face Modeling in the wild", 05/2017
32. Winter school for Computer Science and Engineering, Israel Institute of Advanced Studies (IIAS), Invited lecturer, Jerusalem, "3D face modeling in the wild", 01/2017
33. ImageXD workshop, E-Science Institute, Invited talk, UW, "3D face modeling in the wild", 03/2017
34. CVPR Area Chairs Workshop, Invited talk, Vancouver, "3D face modeling in the wild", 02/2016
35. Royal Society's "Imaging in Graphics, Vision and Beyond", Invited talk, UK, "3D face modeling in the wild", 05/2016
36. 3D Visual computing - graphics, geometry and imaging", Technion, "3D face modeling in the wild", 05/2016
37. Harvey Mudd College, Invited talk, CA, USA, "3D face modeling in the wild", 11/2015
38. EmotiW, ACM International Conference on MultiModal Interaction, Keynote, "3D face modeling in the wild", 11/2015
39. University of California San-Diego, CS colloq., "Big visual data meets human modeling" 03/2015
40. MIT EECS colloq., "Big visual data meets human modeling" 04/2015
41. University of Texas Austin CS colloq., "Big visual data meets human modeling" 04/2015

42. Cornell University, CS, "Big visual data meets human modeling" 04/2015
43. Distinguished lecture, Jump Trading, Chicago, USA, "Big visual data meets human modeling" 12/2014
44. "Storytelling with images and videos" workshop with the ECCV, Invited talk, Zurich, "Big visual data meets human modeling" 11/2014
45. Intellectual Ventures, "Global Good Collaboration", Bellevue, WA, USA, "Big visual data meets human modeling" 05/2014
46. "Scenes from Video" workshop with the International Conference on Computer Vision, Invited talk, Barossa Valley, Australia, "Big visual data meets human modeling" 12/2013
47. Dagstuhl invited seminar on Real-world visual computing, Germany, "Big visual data meets human modeling" 10/2013
48. National Center for Women and Information Technology (NCWIT) award, "Big visual data meets human modeling" 02/2013
49. Facebook, Seattle, Invited talk, "Big visual data meets human modeling" 11/2012
50. At the intersection of Vision, Graphics, Learning and Sensing" Workshop, Microsoft Research, Invited talk, Cambridge, UK, "Big visual data meets human modeling" 06/2012
51. Intel Labs, Santa Clara, "Big visual data meets human modeling" 05/2012
52. EPFL, Lausanne, Switzerland. "Big visual data meets human modeling" 04/2012
53. Invited talk, University of Michigan CS, "Big visual data meets human modeling" 04/2012
54. Invited talk, Johns Hopkins University, "Big visual data meets human modeling" 04/2012
55. Invited talk, Carnegie Mellon, Robotics Institute and CS, "Big visual data meets human modeling" 03/2012
56. Invited talk, Stanford University, CS+EE, "Big visual data meets human modeling" 03/2012
57. Invited talk, Princeton University, CS colloq., "Big visual data meets human modeling" 03/2012
58. Invited talk, University of Minnesota, CS colloq., "Big visual data meets human modeling" 02/2012
59. Invited talk, University of Washington, CS colloq., "Big visual data meets human modeling" 02/2012
60. Invited talk, Princeton University, PACM, "Big visual data meets human modeling" 02/2011
61. Invited talk, New York University, NYC, "Big visual data meets human modeling" 11/2011
62. Invited talk, Adobe, USA, "Recovering 3D shape of faces from single images with applications to infinite number of images" 04/2010
63. Invited talk, Princeton University, PACM, "Recovering 3D shape of faces from single images with applications to infinite number of images" 03/2010
64. Invited talk, Toyota Technological Institute, Chicago, USA, "Recovering 3D shape of faces from single images with applications to infinite number of images" 03/2008
65. Invited talk, Brown University., "Illumination aware face shape recovery" 03/2008
66. Invited talk, Harvard University, "Illumination aware face shape recovery" 03/2008
67. Invited talk, California Institute of Technology, "Illumination aware face shape recovery" 03/2008

68. Invited talk, University of Maryland, "Molding face shapes from example" 08/2006
69. Israel Computer Vision Day, "Molding face shapes from example" 01/2006

Presentations given at conferences

key:

in bold - the person who gave the presentation

¹graduate student under my supervision.

²postdoc under my supervision

1. **Liang, Shu**¹, Xiufeng Huang, Xianyu Meng, Kunyao Chen, Linda G. Shapiro, and Ira Kemelmacher-Shlizerman. "Video to Fully Automatic 3D Hair Model." SIGGRAPH ASIA, Tokyo, 2018
2. **Shlizerman, Eli**, Lucio Dery, Hayden Shochat, Ira Kemelmacher-Shlizerman, "Audio to Body Dynamics", CVPR 2018.
3. **Rematas, Konstantinos**², Ira Kemelmacher-Shlizerman, Brian Curless, and Steve Seitz. "Soccer on Your Tabletop." CVPR 2018.
4. **Nech, Aaron**¹, and Ira Kemelmacher-Shlizerman. "Level playing field for million scale face recognition." CVPR 2017.
5. **Suwajanakorn, Supasorn**¹, Steven M. Seitz, and Ira Kemelmacher-Shlizerman. "Synthesizing obama: learning lip sync from audio." Los Angeles, SIGGRAPH 2017
6. **Kemelmacher-Shlizerman, Ira**. "Transfiguring portraits." Anaheim, SIGGRAPH 2016
7. Liang, Shu¹, Linda G. Shapiro, and **Ira Kemelmacher-Shlizerman**. "Head reconstruction from internet photos." ECCV 2016.
8. **Kemelmacher-Shlizerman, Ira**, Steven M. Seitz, Daniel Miller¹, and Evan Brossard. "The megaface benchmark: 1 million faces for recognition at scale." CVPR 2016.
9. **Suwajanakorn, Supasorn**¹, Steven M. Seitz, and Ira Kemelmacher-Shlizerman. "What makes tom hanks look like tom hanks." ICCV 2015.
10. **Tuite, Kathleen**¹, and Ira Kemelmacher. "The Meme Quiz: A Facial Expression Game Combining Human Agency and Machine Involvement." FDG. 2015.
11. **Liang, Shu**¹, Ira Kemelmacher-Shlizerman, and Linda G. Shapiro. "3d face hallucination from a single depth frame." 3DV, Tokyo 2014.
12. **Suwajanakorn, Supasorn**¹, Ira Kemelmacher-Shlizerman, and Steven M. Seitz. "Total moving face reconstruction." ECCV 2014.
13. Kemelmacher-Shlizerman, Ira, **Supasorn Suwajanakorn**¹, and Steven M. Seitz. "Illumination-aware age progression." CVPR 2014.

14. **Kemelmacher-Shlizerman, Ira**. "Internet based morphable model." ICCV 2013.
15. **Kemelmacher-Shlizerman, Ira**, and Steven M. Seitz. "Collection flow." CVPR 2012.
16. **Kemelmacher-Shlizerman, Ira**, Eli Shechtman, Rahul Garg, and Steven M. Seitz. "Exploring photobios." SIGGRAPH 2011
17. **Kemelmacher-Shlizerman, Ira**, and Steven M. Seitz. "Face reconstruction in the wild." ICCV 2011.
18. **Kemelmacher-Shlizerman, Ira**, Aditya Sankar, Eli Shechtman, and Steven M. Seitz. "Being john malkovich." ECCV 2010.
19. **Kemelmacher-Shlizerman, Ira**, Ronen Basri, and Boaz Nadler. "3D shape reconstruction of Mooney faces." CVPR 2008.
20. **Mahajan, Dhruv**, Ira Kemelmacher Shlizerman, Ravi Ramamoorthi, and Peter Belhumeur. "A theory of locally low dimensional light transport." SIGGRAPH 2007
21. **Kemelmacher, Ira**, and Ronen Basri. "Molding face shapes by example." ECCV 2006.
22. **Kemelmacher, Ira**, and Ronen Basri. "Indexing with unknown illumination and pose." CVPR 2005.

Professional society memberships

Member, IEEE Computer Society since December 2010
Member, Association of Computing Machinery (ACM) since May 2011

Academic service

Reviewer for most computer vision and graphics related journals and conferences, e.g., Pattern Recognition Machine Intelligence (PAMI), Computer Vision Pattern Recognition (CVPR), International Conference Computer Vision (ICCV), European Conference on Computer Vision (ECCV), International Journal of Computer Vision (IJCV), ~100 articles

Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2019 (~30 articles)
Expert Network, LDV capital, 2018
SIGGRAPH, Technical Papers Committee, 2018 (~20 articles)
Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2018 (~30 articles)
SIGGRAPH, Technical Papers Committee, 2017 (~20 articles)
Judge (Startup Competition), LDV Vision Summit, New York City, 2017 (6 proposals)
Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2016 (~30 articles)
Program Coordination Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2016
Doctoral Consortium, CVPR 2016
Judge (Startup Competition), LDV Vision Summit, New York City, 2015 (6 proposals)

Panelist, National Science Foundation (NSF), 2015
Panelist, Intel ISTC, 2015
Program Committee, Eurographics 2015
Program Committee, International Conference on Computational Photography, 2014
Program Committee, International Conference on Computational Photography, 2013

GRADUATE STUDENTS

Chaired Doctoral Degrees

- Shu Liang, Co-chair with Linda Shapiro, Graduated 2018, *Virtualize me: Personalized 3D Head Reconstruction*, Currently at Facebook
- Supasorn Suwajanakorn, Co-chair with Steve Seitz, Graduated 2017, *Audiovisual Persona Reconstruction*, Currently at Google Brain

Current Doctoral Students

- Chung-Yi Weng, Co-chair with Brian Curless, 2015-, post-quals
- Roy Or-El, Chair, 2016-, pre-quals
- Luyang Zhu, Chair, 2018-, pre-quals
- Xiaojuan Wang, 2019-, pre-quals
- Teerapat Jenrungrot, 2019-, pre-quals
- Vivek Jayaram, 2019-, pre-quals
- Dalton Hildreth, 2019-, pre-quals

Chaired Masters Degrees

- Aaron Nech, Co-chair with Steve Seitz, Thesis: “Level playing field for face recognition”, spring 2016, Currently at Facebook.
- Daniel Miller, Co-chair with Steve Seitz, Thesis: “Million scale face recognition”, spring 2015, Currently doing a startup.

Other significant student supervision

Undergrad supervision:

Starting 2018, established undergrad research program and incubator at UWRL
Joseph Zhong, UW CSE, (now at UW M.Sc.) 2017-2018
David Porter, UW CSE, (now at UW M.Sc.), 2016
Dylan Swiggett, UW CSE (now at Google), 2016
Evan Brossard, UW CSE (now at Google), 2015
Lukas Bischofberger (now at ETH Zurich), 2014
Xiaotao Chen (now at eBay), 2013
Elliott Brossard (now at Google), 2013
Daniel Graf (now at ETH Zurich), 2013

Postdocs

Konstantinos Rematas, 2016-2019 (now at Google)
Soumyadip Sengupta, 2019-

RESEARCH ACTIVITIES

Funded Research

Funding Agency	Title	Your role with other PI's and co-PI's	Total Amount, Your Amount, (Subcontracts if any, University Matching if any)	Dates (start - finish)
Amazon	<i>Reality Lab membership</i>	PI (with Steve Seitz and Brian Curless)	\$250K	09/19-09/20
Facebook	<i>Reality Lab membership</i>	PI (with Steve Seitz and Brian Curless)	Total amount \$2M	01/18-01/22
Google	<i>Reality Lab membership</i>	PI (with Steve Seitz and Brian Curless)	Total amount \$2M	01/18-01/22
Huawei	<i>Reality Lab membership</i>	PI (with Steve Seitz and Brian Curless)	Total amount \$2M	01/18-01/22
Gov	<i>Simulation and Improving Facial Aging</i>	PI	Total amount \$350k	3/16-05/18
NSF	<i>The 3D Memex for Virtual Teleportation</i>	co-PI (with Brian Curless, Steve Seitz, Dieter Fox)	Total amount \$616K	10/15-9/18
NSF (extension)	<i>The 3D Memex for Virtual Teleportation</i>	co-PI (with Brian Curless, Steve Seitz, Dieter Fox)	Total amount \$123k	10/18-9/18
Intel	<i>The 3D Memex for Virtual Teleportation</i>	co-PI (with Brian Curless, Steve Seitz, Dieter Fox)	Total amount \$852K	10/18
Google	<i>Capturing and Modeling the Space of Faces</i>	PI	Total amount: \$65K	5/2014
Samsung	<i>3D Face Analysis for Face Recognition</i>	PI	Total amount \$200k	6/2014
Intel	<i>People Analysis in Perceptual Computing</i>	co-PI (with Steve Seitz and Brian Curless)	Total amount \$50k	9/2013
Intel	<i>3D Face Modeling from RGBD</i>	PI	Total amount \$50k	6/2014

List of other teaching contributions

The capstone was developed the first time, the resulted apps made by students were impressive and covered by the press, e.g.,

- TechCrunch, “Students demonstrate their HoloLens apps after a quarter of VR and AR design”, 06/2016
- Geekwire, “The World’s First Hololens class at UW”, 06/2016

Other supporting documents

Evaluated by CELT 01/2015

SERVICE

Departmental service

Director of UW Reality Lab, 2019-present

Founded UW Reality Lab, 2018-present

Board member and Co-director, UW Reality Lab, 2018-present

Grad admissions committee, 2019

Diversity committee, 2019-2020

Lecturer hiring committee, 2019-2020

Professional society and other service

Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2019 (~30 articles)

SIGGRAPH, Technical Papers Committee, 2018 (~20 articles)

Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2018 (~30 articles)

SIGGRAPH, Technical Papers Committee, 2017 (~20 articles)

Area Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2016 (~30 articles)

Program Coordination Chair, IEEE Computer Vision and Pattern Recognition (CVPR), 2016

Doctoral Consortium, CVPR 2016

Panelist, Intel ISTC, 2015

Program Committee, Eurographics 2015

Program Committee, International Conference on Computational Photography, 2014

Program Committee, International Conference on Computational Photography, 2013

Community service

Judging member of Webby awards, International Academy of Digital Arts and Sciences, 2020

Expert Network, LDV capital, 2018

Judge (Startup Competition), LDV Vision Summit, New York City, 2017 (6 proposals)

Judge (Startup Competition), LDV Vision Summit, New York City, 2015 (6 proposals)

International, national or governmental service

Panelist, National Science Foundation (NSF), 2015