

Carl Vondrick

Email: cvondrick@gmail.com

Web: carlvondrick.com

Research Interests

Computer Vision, Machine Learning

Experience

Columbia University	Assistant Professor of Computer Science	Jul 2018 –
Google	Research Scientist	Jul 2017 –
Google X	Software Engineer Intern	Jun 2013 – Aug 2013
Google	Software Engineer Intern	Jun 2012 – Aug 2012
Massachusetts Institute of Technology	Research Assistant	Sep 2011 – Jun 2017
University of California, Irvine	Research Assistant	Jan 2009 – Aug 2011

Education

Massachusetts Institute of Technology	Ph.D. in Computer Science	Sep 2013 – Jun 2017
Massachusetts Institute of Technology	M.S. in Computer Science	Sep 2011 – Jun 2013
University of California, Irvine	B.S. in Computer Science	Sep 2008 – Jun 2011

Consulting

Smartvid.io	Mar 2016 – Sep 2016
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Journal Publications

1. Yusuf Aytar, Lluís Castrejon, Carl Vondrick, Hamed Pirsiavash, Antonio Torralba. “Cross-Modal Scene Networks” *Transactions on Pattern Analysis and Machine Intelligence (PAMI)*. 2017.
2. Carl Vondrick, Aditya Khosla, Hamed Pirsiavash, Tomasz Malisiewicz, Antonio Torralba. “Visualizing Object Detection Features” *International Journal of Computer Vision (IJCV)*. 2016.
3. Xiangxin Zhu, Carl Vondrick, Charless Fowlkes, Deva Ramanan. “Do we need more training data?” *International Journal of Computer Vision (IJCV)*. 2015.
4. Carl Vondrick, Donald Patterson, Deva Ramanan. “Efficiently Scaling Up Crowdsourced Video Annotation” *International Journal of Computer Vision (IJCV)*. 2012.

Conference Publications

5. Adria Recasens, Carl Vondrick, Aditya Khosla, Antonio Torralba. “Following Gaze in Video” *International Conference on Computer Vision (ICCV)*. 2017.
6. Carl Vondrick, Antonio Torralba. “Generating the Future with Adversarial Transformers” *Computer Vision and Pattern Recognition (CVPR)*. 2017.
7. Carl Vondrick, Hamed Pirsiavash, Antonio Torralba. “Generating Videos with Scene Dynamics” *Neural Information Processing Systems (NIPS)*. 2016.
8. Carl Vondrick, Yusuf Aytar, Antonio Torralba. “SoundNet: Learning Sound Representations from Unlabeled Video” *Neural Information Processing Systems (NIPS)*. 2016.
9. Carl Vondrick, Hamed Pirsiavash, Antonio Torralba. “Anticipating Visual Representations with Unlabeled Video” *Computer Vision and Pattern Recognition (CVPR)*. 2016. Spotlight presentation.
10. Carl Vondrick, Deniz Oktay, Hamed Pirsiavash, Antonio Torralba. “Predicting Motivations Behind Actions by Leveraging Text” *Computer Vision and Pattern Recognition (CVPR)*. 2016.

11. Lluís Castrejon, Yusuf Aytar, Carl Vondrick, Hamed Pirsiavash, Antonio Torralba. “Learning Aligned Cross-Modal Representations from Weakly Aligned Data” *Computer Vision and Pattern Recognition (CVPR)*. 2016.
12. Carl Vondrick, Hamed Pirsiavash, Aude Oliva, Antonio Torralba. “Learning Visual Biases from Human Imagination” *Neural Information Processing Systems (NIPS)*. 2015.
13. Adria Recasens, Aditya Khosla, Carl Vondrick, Antonio Torralba. “Where are they looking?” *Neural Information Processing Systems (NIPS)*. 2015. Spotlight presentation.
14. Hamed Pirsiavash, Carl Vondrick, Antonio Torralba. “Assessing the Quality of Actions” *European Conference on Computer Vision (ECCV)*. 2014.
15. Carl Vondrick, Aditya Khosla, Tomasz Malisiewicz, Antonio Torralba. “HOGgles: Visualizing Object Detection Features” *International Conference on Computer Vision (ICCV)*. 2013. Oral presentation.
16. Xiangxin Zhu, Carl Vondrick, Deva Ramanan, Charless Fowlkes. “Do We Need More Training Data or Better Models for Object Detection?” *British Machine Vision Conference (BMVC)*. 2012.
17. Carl Vondrick and Deva Ramanan. “Video Annotation and Tracking with Active Learning” *Neural Information Processing Systems (NIPS)*. 2011.
18. Sangmin Oh, et al. “A Large-scale Benchmark Dataset for Event Recognition in Surveillance Video” *Computer Vision and Pattern Recognition (CVPR)*. 2011.
19. Carl Vondrick, Deva Ramanan, Donald Patterson. “Efficiently Scaling Up Video Annotation with Crowdsourced Marketplaces” *European Conference on Computer Vision (ECCV)*. 2010.

Awards and Honors

Google Ph.D. Fellowship in Machine Perception	2015 – 2017
National Science Foundation Graduate Fellowship	2011 – 2014
Outstanding Reviewer Award for ECCV, CVPR	2015 – 2016
UCI Chancellor’s Award for Undergraduate Research	2011

Press Coverage

NPR	Computer Binge-Watched TV And Learned To Predict What Happens	2016
NPR Marketplace	Algorithms Identify Audio through Video Footage	2016
CNN	New AI Can Predict When Two People Will Kiss	2016
Associated Press	How Do You Teach Human Interaction to a Robot? Lots of TV	2016
NBC	Deep Learning: Teaching Computers to Predict the Future	2016
Newsweek	Artificial Intelligence Algorithms Predicts the Future	2016
Forbes	MIT Computers Binge-Watch To Learn About Hugs	2016
CBC Radio	Teaching Software to Predict Handshakes, Hugs, and Kisses	2016
ABC News	New AI Can Predict When Two People Will Kiss	2016
Fox News	New Artificial Intelligence Can Predict When You Will Kiss Someone	2016
Wired	This AI learned to predict the future by watching loads of TV	2016
Popular Science	Algorithm Binge Watches TV to Predict Human Behavior	2016
Scientific American	Artificial Intelligence Can Predict How Scenes Will Play Out	2016
New Scientist	Binge-watching videos teaches computers to recognise sounds	2016
New Scientist	AI learns to predict the future by watching 2 million videos	2016
Vice Magazine	This Algorithm Taught Itself to Animate a Still Photo	2016
The Verge	Machine Learning’s Next Trick is Generating Videos from Photos	2016
The Week Junior	A machine that learns by listening (children’s magazine)	2016
Stephen Colbert	Television clip on human action prediction	2016
Technology Review	Image Experiment Reveals The Building Blocks of Imagination	2014

Invited Talks

Predictive Vision

- International Computer Vision Summer School Jul 2018
- University of Maryland, College Park Mar 2018
- University of Pennsylvania Nov 2017
- Snapchat Research Nov 2017
- University of Southern California Nov 2017
- Workshop on Video Frontiers Nov 2017
- Rework Summit May 2017
- University of California, San Deigo Apr 2017
- Cornell University Apr 2017
- University of Texas, Austin Mar 2017
- Columbia University Mar 2017
- Google Research Mar 2017
- Adobe Research Mar 2017
- OpenAI Mar 2017
- Brown University Feb 2017
- University of California, Los Angeles Feb 2017
- NVidia Feb 2017
- Rework Summit Nov 2016
- Twitter Oct 2016
- TTI Chicago Sep 2016
- Massachusetts Institute of Technology Sep 2016
- Apple Aug 2016
- University of California, Berkeley Aug 2016
- Stanford University Aug 2016
- Boston University Mar 2016
- University of Massachusetts, Boston Mar 2016

Visualizing Object Detection Features

- University of Massachusetts, Boston Mar 2016
- Massachusetts Institute of Technology Sep 2015
- Brown University Nov 2013

Efficient Video Annotation

- CVPR Workshop Jun 2013
- CVPR Workshop Jun 2011

Professional Service

- Senior Program Committee (Area Chair), CVPR 2018
- Program Committee, Action and Anticipation Workshop 2016, 2017
- Program Committee, Workshop on Human Computation for Image and Video Analysis 2016
- Reviewer for CVPR, ICCV, ECCV, NIPS, ICML, IJCV 2011 – 2017