Stephen Lombardi

Research Scientist

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programming

Python, C++, CUDA

education

2009–2016	**Ph.D. in Computer Science** Advised by Dr. Ko Nishino	Drexel University
Thesis	Radiometric Scene Decomposition: Estimating Complex Reflectance and Natural Illumination from Images	
2009–2012	**M.S. in Computer Science**	Drexel University
2005–2009	**B.S. in Computer Science**	The College of New Jersey

experience

2016–Now	**Facebook Reality Labs** *Research Scientist* Developed state-of-the-art rendering techniques with deep learning Implemented real-time VR telecommunication system Published work in SIGGRAPH	Pittsburgh, PA, USA
2010–2016	**Drexel University** *Research Assistant* Developed inverse rendering algorithms Published work in CVPR, ECCV, 3DV, and TPAMI	Philadelphia, PA, USA

publications

Journal Articles

Reflectance and Illumination Recovery in the Wild
Stephen Lombardi and Ko Nishino
IEEE Transactions on Pattern Analysis and Machine Intelligence *38.1 (Jan. 2016)*. 2016

Bayesian Defogging
Ko Nishino, Louis Kratz, and Stephen Lombardi
International Journal of Computer Vision *98.3 (June 2012)*. 2012

Directional Statistics-based Reflectance Model
for Isotropic Bidirectional Reflectance Distribution Functions
Ko Nishino and Stephen Lombardi
Journal of the Optical Society of America A *28.1 (Jan. 2011)*. 2011

Conference Proceedings

Neural Volumes: Learning Dynamic Renderable Volumes from Images
   Stephen Lombardi, Tomas Simon, Jason Saragih, Gabriel Schwartz, Andreas Lehrmann, and Yaser Sheikh
   Proceedings of ACM SIGGRAPH, 2019

VR Facial Animation via Multiview Image Translation
   Shih-En Wei, Jason Saragih, Tomas Simon, Adam W. Harley, Stephen Lombardi, Michal Perdoch, Alexander Hypes, Dawei Wang, Hernan Badino, and Yaser Sheikh
   Proceedings of ACM SIGGRAPH, 2019

Deep Appearance Models for Face Rendering
   Stephen Lombardi, Tomas Simon, Jason Saragih, and Yaser Sheikh
   Proceedings of ACM SIGGRAPH, 2018

Radiometric Scene Decomposition: Scene Reflectance, Illumination, and Geometry from RGB-D Images
   Stephen Lombardi and Ko Nishino
   Proceedings of 4th International Conference on 3D Vision, 2016

Two-Point Gait: Decoupling Gait from Body Shape
   Stephen Lombardi, Ko Nishino, Yasushi Makihara, and Yasushi Yagi
   Proceedings of 14th International Conference on Computer Vision, 2013

Reflectance and Natural Illumination from a Single Image
   Stephen Lombardi and Ko Nishino
   Proceedings of 12th European Conference on Computer Vision, 2012

Single Image Multimaterial Estimation
   Stephen Lombardi and Ko Nishino
   Proceedings of IEEE Conference on Computer Vision and Pattern Recognition, 2012

awards

2013	**Doctoral Research Excellence Award** Highly Commended	Drexel University
2012	**Jay Modi Award** In recognition of academic excellence and the potential to become a leader in the field	Department of Computer Science, Drexel University
2012	**Harry Brown, Jr. Endowed Fellowship**	Drexel University
2011	**George Hill, Jr. Endowed Fellowship** For potential to achieve academic excellence at the Ph.D. level	Drexel University
2009, 2010	**Provost Fellowship** For doctoral students who show excellent promise in their field of expertise	Drexel University
2009	**Dean's Fellowship** For doctoral students who show excellent promise in their field of expertise	Drexel University
2008	**Junior Computer Science Award** For outstanding performance and lasting contributions	The College of New Jersey