

## Chloe A. LeGendre

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- EDUCATION**
- University of Southern California**, Los Angeles, CA **August 2015 -**  
Ph.D., Computer Science (in progress)
- Stevens Institute of Technology**, Hoboken, NJ **September 2012 - May 2015**  
M.S., Computer Science  
GPA: 4.00
- University of Pennsylvania**, Philadelphia, PA **September 2005 - May 2009**  
B.S. in Engineering, Chemical and Biomolecular Engineering  
GPA: 3.69
- RESEARCH INTERESTS** Computational Photography, Appearance Capture, Color Imaging & Measurement, Computer Vision, 3D Reconstruction
- RESEARCH EXPERIENCE**
- Graduate Research Assistant** **August 2015 - present**  
Vision and Graphics Lab, USC Institute for Creative Technologies, Playa Vista, CA
- Advisor: Professor Paul Debevec
  - Multispectral imaging, lighting reproduction, computational photography, appearance capture, spectroscopy.
- Graduate Research Assistant** **January 2014 - July 2015**  
Department of Computer Science, Stevens Institute of Technology, Hoboken, NJ
- Advisor: Associate Professor Philippos Mordohai
  - 3D reconstruction, binocular and multiview stereo vision from video and high resolution images.
- PUBLICATIONS**
- LeGendre, C.**, Yu, X., Liu, D., Busch, J., Jones, A., Pattanaik, S., and Debevec, P. 2016. Practical Multispectral Lighting Reproduction. *ACM Transactions on Graphics (TOG)*, 35, 4 (July): 32 (SIGGRAPH 2016).
- LeGendre C.**, Yu, X., and Debevec, P. 2016. Efficient Multispectral Reflectance Function Capture for Image-Based Relighting. In *Proc. of IS&T Color Imaging Conference 24*, 2016.
- LeGendre C.**, Yu, X., and Debevec, P. 2016. Optimal LED Selection for Multispectral Lighting Reproduction. In *ACM SIGGRAPH 2016 Posters*, ACM, SIGGRAPH 2016.
- LeGendre C.**, Yu, X., and Debevec, P. 2017. Optimal LED Selection for Multispectral Lighting Reproduction. In *Proc. of IS&T Electronic Imaging 2017 Material Appearance Conference*. [*Best Student Paper Award*]
- Holm, J., Maier, T., Debevec, P., **LeGendre, C.**, Pines, J., Erland, J., Joblove, G., Dyer, S., Sloan, B., di Gennaro, J., and Sherlock, D. 2016. A Cinematic Spectral Similarity Index. In *Proc. of Annual Technical Conference & Exhibition, Society of Motion Picture and Television Engineers (SMPTE) 2016*.

**LeGendre C.**, Hyunh, L., Wang, S., and Debevec, P. 2017. Modeling Vellus Facial Hair from Asperity Scattering Silhouettes. SIGGRAPH 2017 Talks. (*Accepted, to appear.*)

**LeGendre C.**, Bastos, K., and Mordohai, P. 2017. High-Resolution Stereo Matching based on Sampled Photoconsistency Computation. British Machine Vision Conference 2017. (*Accepted, to appear.*)

**LeGendre C.**, Krissman, D., and Debevec, P. 2017. Improved Chromakey of Hair Strands via Orientation Filter Convolution. SIGGRAPH 2017 Posters. (*Accepted, to appear, nominated for ACM Student Research Competition*)

PROFESSIONAL  
EXPERIENCE

**Google VR (Daydream)**, Los Angeles, CA  
Software Engineering Intern (Starting summer 2017)

**L'Oréal USA Research & Innovation**, Clark, NJ  
Senior Scientist I/II, Emerging Technologies **May 2013 - June 2015**

- *Makeup Genius* augmented reality smartphone application that uses facial feature tracking to virtually apply cosmetic products in real time (9M downloads globally).
- *Skintone Pro* low-cost spectrophotometer device with embedded learning algorithms for cosmetic product recommendations.

Scientist, Instrumentation and Imaging Laboratory **September 2011 - April 2013**

- Clinical instrumentation and multimodal image capture and analysis methods to assess changes in skin conditions over time.

**Johnson & Johnson Consumer Products Company**, Skillman, NJ  
Scientist I/II, R&D Leadership Program **June 2009 - August 2011**

- Clinical instrumentation and imaging methods for skin health assessment.
- FIRST Robotics strategy mentor to FIRST team 75 (Hillsborough, NJ).

**University of Pennsylvania**, Philadelphia, PA  
Department of Chemical and Biomolecular Engineering  
T.A., Fundamentals of Biotechnology **September 2006 - December 2006**

PATENT  
APPLICATIONS

G. Balooch, R. Jung, W. Jung, **C. LeGendre**, A. Loudermilk, P. Patel, W. Sloan. Systems and methods for measuring spectra of skin and other objects and materials and making predictions based thereon. Application No. US 20150085279 A1. Filed 18 September 2014.

G. Balooch, **C. LeGendre**, A. Loudermilk, C. Luongo, P. Patel, W. Sloan. Systems and methods for measuring and categorizing colors and spectra of surfaces. Application No. WO 2015040110 A1. Filed 18 September 2014.

SERVICE

Academy of Motion Picture Arts and Sciences - Science & Technology Council Committee on Solid State Lighting (member).  
Imaging Science & Technology - Color Imaging Conference 2017 (reviewer).  
SIGGRAPH 2017 (reviewer).

HONORS AND  
AWARDS

Annenberg Ph.D. Fellowship, University of Southern California (2015 - 2019).  
Computing Research Association CRA-W Grad Cohort - Travel Stipend (2017).  
Best Student Paper, IS&T Electronic Imaging Conference (2017).  
USC Stevens Center for Innovation Commercialization Award (2017).

Dean's List, University of Pennsylvania (2007 - 2009).  
Stuart W. Churchill Individual Research Prize for Undergraduate Research in Chemical Engineering, University of Pennsylvania (2009).

PROGRAMMING C++, OpenCV, CUDA, MATLAB, Python.

SOFTWARE NUKE, Maya (Arnold, V-Ray), Adobe Photoshop.

LANGUAGE English (native), French (proficient).

MEMBERSHIP ACM (2013 - present).  
USC Chapter of the National Academy of Inventors (2017 - present).