

CONTACT INFORMATION	531 Lasuen Mall, P.O. Box 18252 Stanford, CA, 94309	<i>Email:</i> johnwl@stanford.edu
RESEARCH INTERESTS	Artificial intelligence, machine learning, computer vision, reinforcement learning, probabilistic graphical models, and convex optimization. I enjoy training deep neural networks on large data sets. I am seeking to develop working, artificially intelligent systems that will improve the quality of people's lives.	
EDUCATION	Georgia Institute of Technology Ph.D., Computer Science, (Sept. 2018-2023). President's Fellow, 2018. Stanford University M.S., Computer Science, with Specialization in Artificial Intelligence (Expected Jun. 2018). Stanford University B.S., Computer Science, with Specialization in Artificial Intelligence (Jan. 2018). B.S. Minor, Mathematics.	
PROGRAMMING	Python, C/C++, MATLAB, UNIX, XHTML, CSS, Java, JavaScript.	
FRAMEWORKS	PyTorch, TensorFlow, AngularJS, Node.js, MongoDB.	
RESEARCH EXPERIENCE	Stanford Vision and Learning Lab, Research Assistant , Stanford, California (May 2017-Present) While working in the laboratory of Dr. Silvio Savarese, Ph.D., I developed methods to utilize privileged information at training time of convnets to improve the accuracy of models without access to such privileged information at test time. We developed state-of-the-art methods for low-data regimes. Stanford Vision Lab, Research Associate , Stanford, California (Jan. 2017-June 2017) While working in the laboratory of Dr. Fei-Fei Li, Ph.D., I developed self-supervised methods for representation learning for action recognition and prediction from RGB video input. Also worked to develop novel methods for representation learning using GANs and privileged information. Quantitative Imaging Lab, Research Assistant , Stanford, California (June 2016-Dec. 2016) Worked in the laboratory of Dr. Daniel Rubin, M.D., M.S. at the Department of Radiology, Stanford School of Medicine to develop deep learning methods for biomedical image analysis. Expanded and optimized state-of-the-art computed tomography (CT) organ lesion segmentation algorithms involving iterative energy-minimization curve evolution and pixelwise CNN classification. Built recurrent neural network models to learn and visualize word embeddings of massive clinical narrative corpora and to generate narratives describing images. Implemented fully-convolutional networks for semantic segmentation of microscopy regions-of-interest and developed CNN detection algorithms and visualization techniques for 2-D and 3-D detection tasks.	
CONFERENCE PUBLICATIONS	Lambert, J.* , Sener, O.*, and S. Savarese. <i>Deep Learning Under Privileged Information Using Heteroscedastic Dropout</i> . IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018 (Spotlight).	
CONFERENCE WORKSHOP PUBLICATIONS	Lambert, J.* , Sener, O.*, and S. Savarese. <i>Deep Learning Under Privileged Information</i> . Workshop on Bayesian Deep Learning, Neural Information Processing Systems (NIPS), 2017 (Spotlight). Hoogi, A.*, Lambert, J.* , Zheng, Y., Comaniciu, D., and D. Rubin. <i>A Fully-Automated Pipeline for Detection and Segmentation of Liver Lesions and Pathological Lymph Nodes</i> . Workshop on Machine Learning in Healthcare, Neural Information Processing Systems (NIPS), 2016.	
WORK EXPERIENCE	Argo AI, Machine Learning Intern , Pittsburgh, Pennsylvania (June 2017-Sept. 2017) Implemented, tested, and benchmarked real-time machine perception algorithms in C++11/14 for autonomous vehicles. Implemented a key portion of the tracking pipeline that was immediately deployed on-vehicle. Developed and presented extensive proposals to the company leadership for the next-generation sensor fusion perception system.	

WORK EXPERIENCE	<p>Varian Medical Systems, Software Engineering Intern, Palo Alto, California (June-Aug. 2015) Developed probabilistic graphical models (PGMs) in order to predict optimal treatment plans for lung cancer patients. Incorporated ontologies and implemented back-end Java and front-end AngularJS services to deliver the machine learning models in a point-of-care Cloud application to oncologists. The models and work were showcased in early 2016 as part of the 360 OncologyTM product launch.</p> <p>EAS Advisors LLC, Summer Analyst, New York, New York (June-Aug. 2012) Created models and investor presentations for non-deal and deal roadshows at an investment advisory firm. Performed market research in natural resource industries, compiled the results, and presented findings to potential investors. Capital requirements of projects ranged from \$2M-40M USD.</p>
PRESENTATIONS	<p>Buhler, K.*, Lambert, J.*, Vilim, M. (2016, December). <i>YoloFlow: Real-time Object Tracking in Video</i>. Poster presented at CS 229 Final Project Poster Session, Stanford, CA.</p> <p>Lambert, J. (2016, December). <i>Precision Medicine in Practice: Radiation Oncology Decision Support via EM Learning</i>. Poster presented at CS 221 Final Project Poster Session, Stanford, CA.</p> <p>Hoogi A.*, Lambert J.*, Zheng Y., Comanciu D., and D. Rubin. (2016, September). <i>Quantifying Treatment Response: A Joint CNN-Level-Set Method for Generalizable Organ Lesion Segmentation in CT</i>. Poster presented at 2016 Stanford Biomedical Informatics Annual Retreat, Asilomar, CA.</p> <p>Lambert, J. (2016, June). <i>Encoder-Decoder Networks: Machine Understanding of Images</i>. Poster presented at CS 224D Final Project Poster Session, Stanford, CA.</p> <p>Lambert, J. (2016, June). <i>Fully-Convolutional Networks for Semantic Segmentation of Fluorescence Microscopies</i>. Presentation delivered at CS 231A Final Presentation Session, Stanford, CA.</p> <p>Bahtchevanov, I.*, Hildick-Smith, S.*, and Lambert, J.*. (2016, April). <i>Quantifying Mammalian Learning: Large-Scale Detection of Dendritic Spines</i>. Poster presented at the 16th Annual Biomedical Computation at Stanford Symposium (BCATS) Poster Session, Stanford, CA.</p>
TECHNICAL REPORTS	<p>Lambert, J.*, Dery, L.* (2017, December). <i>Annotation Acceleration as Active Metric Learning</i>. Final Course Project, CS 332.</p> <p>Hildick-Smith, S.*, Lambert, J.*, Weems, B.* (2016, December). <i>Training Regime Modifications for Deep Q-Network Learning Acceleration</i>. Final Course Project, CS 238.</p>
SELECTED HONORS	<p>Outstanding Reviewer Award, CVPR 2018.</p> <p>Travel Award, Bayesian Deep Learning Workshop, NIPS 2017 (8 awarded out of 68 accepted abstracts)</p> <p>President, Latter-day Saint Student Association (LDSSA), Stanford University (2016-2017)</p> <p>13th Place, USA Intercollegiate Rowing Association National Championship Regatta, Stanford University Varsity Crew Team (2012)</p> <p>National Merit Finalist and National AP Scholar (2011)</p> <p>Shell Oil Company Technical Scholarship Winner (2011)</p> <p>Eagle Scout, Silver Palm (2007)</p>
LANGUAGES	Russian (ACTFL “Advanced High” Oral and Writing Proficiency); French (elementary proficiency)
SERVICE ACTIVITIES	<p>Reviewer for IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (2018).</p> <p>Volunteer Mission, Rostov-na-Donu, Russia (Aug. 2012-Sept. 2014) Full-time missionary and volunteer representative of church. Taught lessons in Russian to people daily while leading and training a group of 20 missionaries in the cities of Volgograd, Astrakhan, and Volzhsky. Attended monthly leadership councils, developed goals for the missionaries in the region, and created and executed plans to reach these goals. Organized and taught free English language classes and carried out community service projects.</p>