

# PATRICK LANCASTER

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## EDUCATION

**University of Washington, Seattle, WA** 2014 - Present  
**Ph.D.** Computer Science and Engineering Expected June 2019

**University of Washington, Seattle, WA** 2011 - 2014  
**B.S.E.E** Electrical Engineering (Embedded Systems)  
**B.S.** Applied Computational and Mathematical Sciences

## RESEARCH

Graduate Research Assistant, University of Washington June 2014 - Present  
Prof. Joshua R. Smith, Sensor Systems Laboratory  
Project: Pre-touch Sensing for Robot Manipulators

Undergraduate Research Assistant, University of Washington June 2012 - December 2013  
Prof. Eve A. Riskin  
Project: Alternative and Augmentative Communication Mobile Application for children with autism

## PREPRINTS

C. M. Watts, **P. Lancaster**, A. Pedross-Engel, J. R. Smith, M. S. Reynolds. "2D and 3D Millimeter-Wave Synthetic Aperture Radar Imaging on a PR2 Platform." Submitted to Intelligent Robots and Systems (IROS), 2016.

## PUBLICATIONS

D. Guo, **P. Lancaster**, L.T. Jiang, F. Sun, J.R. Smith. "Transmissive optical pretouch sensing for robotic grasping." Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on. IEEE, 2015.

## HONORS / AWARDS

Graduated Magna Cum Laude  
University of Washington President's Medal Nominee  
Member of HKN International Society for Electrical Engineers

## TEACHING

**Student Mentor**, Center for Sensorimotor Neural Engineering Summer 2015  
**Graduate Teaching Assistant**, Microcomputer Systems (EE 472) Summer 2014  
**Undergraduate Teaching Assistant**, Embedded Systems Capstone (EE 478) Spring 2014  
**Undergraduate Teaching Assistant**, Microcomputer Systems (EE 472) Winter 2014

## OTHER WORK EXPERIENCE

**Undergraduate Intern**, Sandia National Laboratories, Albuquerque NM June 2013 - September 2013

## **SELECTED COURSES**

**Electrical Engineering:** Embedded Systems, Analog Devices and Circuit Design, Digital Logic, Semiconductor Device Physics

**Mathematics:** Dynamical Systems and Chaos, Partial Differential Equations, Complex Analysis, Probability and Statistics

**Computer Science:** Machine Learning, Computer Vision, Artificial Intelligence, Probabilistic Robotics, Probabilistic Graphical Models, Data Structures and Algorithms

## **COMPUTING**

**Languages:** C++, C, Java, Python, MatLAB

**Operating Systems:** Linux, Windows