

# Johannes Henriksson

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Albany, CA 94706. USA

## • Education •

**UC Berkeley: PhD in Electrical Engineering and Computer Science** [in progress] Aug 2016 -

Berkeley, CA, USA

Research focused on silicon photonics and MEMS for optical switches. Work span everything from optical simulations and layout to fabrication, testing and characterization. Co-authored 11 journal and conference papers. Advisor: Prof. Ming Wu. **GPA: 3.74 (4 max)**

**Lund University: M.Sc. in Engineering Physics** Sep 2011 - Mar 2016

Lund, Sweden

Practically a combined Bachelor's+Master's program giving a solid mathematics and physics background in addition to broad engineering knowledge. Specialized in photonics. Finished one semester earlier than expected. **GPA: 4.87 (5 max)**

**UCLA: Exchange Student** Sep 2014 - Jun 2015

Los Angeles, CA, USA

Study abroad with focus on photonics classwork. Classes in EE and physics, both upper division and graduate level. Was on Dean's Honors list every quarter and also contributed to research (see below). **GPA: 3.97 (4 max)**

## • Work Experience •

**Apple: Engineering Intern** Jun - Aug 2020

Cupertino, CA, USA. *Optical Sensing Hardware Team*

First, I developed and implemented a customized characterization method for optical materials which was validated with measurement data. Second, I worked on optical scattering including theory, numerical simulation (FDTD) and model validation.

**Lawrence Livermore National Laboratory: Engineering Intern** May - Aug 2016

Livermore, CA, USA. *Materials Engineering Division*

Did research on a novel additive manufacturing technology based holographic stereolithography. Developed algorithms, the optical setup and performed experimental fabrication work.

**University Startup: Computer Vision Consultant** Dec - Mar 2016

Lund, Sweden. *Mathematical Imaging Group*

Part-time consultant for an early-stage company working to launch a new forest inventory system. Worked with the computer vision group at Lund University to design a demo using segmentation, feature detection and object recognition algorithms.

**ON Semiconductor (former Aptina): Imaging Applications Engineering Intern** Jun - Sep 2015

San Jose, CA, USA. *Camera Module Group*

Worked on CMOS image sensors and how they interact with camera modules in mobile phones. Responsible for the developing a new in-house characterization method for optical image stabilization.

**BorgWarner: Vehicle Dynamics Engineering Intern (3 summers)** Jun - Sep 2014,

Landskrona, Sweden. *Control SW and Vehicle Dynamics Group* Jun - Aug 2013,

Simulated car dynamics using MATLAB/Simulink and then connected some of the models to an interactive real-time 3D-visualization tool. Worked on multiple projects, presented and documented the results. Jun - Aug 2012

**Lund University: Teaching Assistant (4 times)** Jan - Mar 2016,

Lund, Sweden. *Division of Mechanics* Jan - Mar 2014,

Assisted mechanical and industrial engineering students during problem solving sessions in their first mechanics class. Sep - Oct 2013,

Jan - Mar 2013

## • Programing Languages and Tools •

Java  
C  
C#  
Python

MATLAB  
Simulink  
LabVIEW  
CST

Zemax  
LightTools  
Lumerical MODE  
Lumerical FDTD

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## • Technical Projects •

### **Axis Communications: Master's Thesis**

Sep 2015 - Jan 2016

Lund, Sweden. *Fixed Box Cameras Group*

Titled "Heterogeneous Multi-Sensor Camera", this project was carried out to develop a prototype camera that captures and digitally merges color and IR images to produce one superior video stream. Work consisted of both camera design as well as image processing.

### **UCLA Undergraduate Researcher: Holographic Optical Trapping**

Jan - Jun 2015

Los Angeles, CA, USA

Worked on everything from optical simulations to setting up and aligning an optical tweezers system in Prof. J.Hopkins' group. Responsible for software development featuring a GUI, video processing as well as hardware control of a spatial light modulator.