# STEFAN A SIGURDSSON

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#### **EDUCATION**

Brown University Providence, RI, USA

Doctor of Philosophy in Neuroengineering

2015 - Present

• Advisor: Dr. Arto Nurmikko

• Thesis title: "Developing a Methodology for Submersion of Microdevices into the Cortex"

<u>University of Iceland</u> Reykjavik, Iceland

Bachelor of Science in Physics

2012 – 2015

• Graduated with distinction; Grade: 9.59/10.00

Waseda University Tokyo, Japan

Undergraduate Exchange Program

2014 - 2015

Researched heat-evoked neuronal action potential generation by patch clamp in the Ishiwata Lab

#### RELEVANT COURSEWORK

Design of Computing Systems Mixed-Signal Electronic Design Numerical Analysis Information Theory

### **PROJECTS**

#### Computer Vision: Automated Pick & Place Processing (Python)

Automated the sorting of sub-mm size silicon dies by Pick & Place machine using the OpenCV library

### FPGA Programming: ARM32 Processor Implemented on a Cyclone II (Verilog)

- Implemented a 5-stage pipelined ARM32 processor in Verilog for course ENGN1640 at Brown University
- Achieved the highest processor frequency of any student for the year 2017

#### COMPUTER SKILLS

Languages: Python, Verilog, Matlab, Java, C#, C++

Operating Systems: Linux, Windows

#### WORK EXPERIENCE

University of Iceland Reykjavik, Iceland

Summer Research Internship

May – Sept. 2014

• Investigated Debye Sheath phenomena by Monte Carlo plasma simulation in C++

<u>University of Iceland</u> Reykjavik, Iceland

Teaching Assistant

Summer Internship

Sept. – Dec. 2013

• Taught first year physics (theory and experimental)

**Carbon Recycling International** 

Reykjavik, Iceland May – Sept. 2013

• Built Excel models for feasibility studies of expanding international operations

## HONORS & AWARDS

- Awarded for highest graduating grade in the sciences at the University of Iceland for the year of 2015
- Honorable Mention at the International Physics Olympiad in 2012
- Second Place in the Icelandic National High School Math Competition for the year 2012
- First Place in the Icelandic National High School Programming Competition for the year 2012