STEFAN A SIGURDSSON

100 E Manning St, Providence, RI 02906 USA
+1-401-489-6161 | stefan.asigurdsson@gmail.com

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"*

University of Iceland — **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

Networking: Net-Blob, Netcode Visualization Tool *(Python)*

- Implemented various networking algorithms relating to online multiplayer gaming within the context of a networked multiplayer game. The tool includes the ability to visualize these networking algorithms in action under various network conditions – conditions which may be simulated by the user.

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 > C++ >> Java > Verilog = Matlab.

WORK EXPERIENCE

Brown University — **Providence - RI, USA**

PhD. Student Researcher — Sept. 2014 - Present

- Thesis research in Dr. Arto Nurmikko's Neuroengineering and Nanophotonics Lab.

University of Iceland — **Reykjavik, Iceland**

Summer Research Intern — May – Sept. 2014

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

University of Iceland — **Reykjavik, Iceland**

Teaching Assistant — Sept. – Dec. 2013

- Taught first year physics (theory and experimental).

HONORS & AWARDS

- Awarded for highest graduating grade in the physical sciences at the University of Iceland for the year of 2015
- Honorable Mention at the International Physics Olympiad in 2012
- 2nd Place in the Icelandic National High School Math Competition for the year 2012