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"*

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

PROGRAMMING LANGUAGES

Proficient in Python; Familiar with C++, Java, Verilog, and Matlab.

PROJECTS

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 simulated network conditions.

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.

WORK EXPERIENCE

Brown University **Providence - RI, USA**

Graduate Student Researcher Sept. 2015 - 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).

RELEVANT COURSEWORK

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

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.
- Rank 180 in Google Kickstart round H – 2019.