Elliot Saba

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EDUCATION

- **University of Washington**, B.S. (2011) M.S. (2014) Electrical Engineering, 6th Year Ph.D. student**,** Focus on **Digital Signal Processing**

SKILLS

- Proficient in **C/C++**, **Python**, **Julia**, **MATLAB**, **C#**, **Javascript**
- Experience with Assembly, Perl, PHP, Objective-C, CUDA/OpenCL
- Areas of expertise: **DSP**, **machine learning**, **parallelization**, **wireless communications, optimization** for **real-time systems**, **web service development**.

EXPERIENCE

TEACHING

PMP EE 596 Predoctoral Lecturer, University of Washington, 2013/2014/2015
- Created and taught a new Professional Masters Program class focusing on real-time sensing and control applications on smartphones

RESEARCH

Graduate Research Assistant, UW Department of Computer Science,
Ubiquitous Computing Laboratory, March 2014-Present
- Built a Wi-Fi (802.11b/g) decoder for software defined radio
- Coauthor of *WiBreathe*[1], a noncontact wireless system to determine breathing rate
- Coauthor of *SpiroCall*[2], using old telephone infrastructure for lung function measurement

Graduate Research Assistant, UW Department of Electrical Engineering,
Institute for Learning and Brain Sciences, September 2011 – March 2014
- Part of an interdisciplinary team developing novel signal processing methods to analyze cortical rhythms for evidence of cross-frequency coupling

EMPLOYMENT

Research Intern, Microsoft Research, Summer 2015, Summer 2017
- Prototyped new data collection methods for a wearable health sensing device
- Developed a framework to apply approximating optimizations to deep neural networks

Research Intern, Oculus Research, Summer 2016
- Built a prototype pulsed sonar system for real-time object tracking and scene understanding

OPENSOURCE ACTIVITIES

Julia Developer, 2013-Present
- Core Julia[3] developer, responsible for, among other things, much of the infrastructure, binary dependency building, and quality-of-life maintenance of the language.

HONORS

- Winner of the 2014 UW CSE Madrona Venture Group Prize (2nd place)
- Recipient of the 2013 Baker Fellowship and 2013 Boeing Fellowship

[1] WiBreathe: https://goo.gl/rj9iJ6
[2] SpiroCall: https://goo.gl/h11ZAd
[3] The Julia Language: https://julialang.org