

Seth Ebner

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<http://www.sebner.com>

EDUCATION	Johns Hopkins University Ph.D. Computer Science	August 2017 - present
	Washington University in St. Louis B.S. Computer Science B.S. Electrical Engineering Cumulative GPA: 4.0 / 4.0 Major GPA: 4.0 / 4.0	August 2013 - May 2017 <i>Valedictorian, Summa Cum Laude - Rank: 1 / 319</i>
EXPERIENCE	Washington University in St. Louis , St. Louis, MO <i>Student Researcher</i>	August 2014 - May 2017
	<ul style="list-style-type: none">• Neuromorphic Architecture (Senior design project) Implemented support vector machine based on new spiking neuron model for neuromorphic architecture, which mimics biological architecture (C, Raspberry Pi). Wrote program to display real-time spiking patterns (Python)• Cache Replacement Policies Investigated performance of deterministic and stochastic criticality-based cache replacement policies. Implemented stochastic replacement policy (Java). Wrote script to simulate load/store instructions of real-time processes for analysis of cache performance (Python)• Binary Integer Programming Investigated effects of adding partial solutions as constraints to initial binary integer programs on execution time of solvers (MATLAB, Octave). Also explored effects of clustering constraints on execution time and output of binary integer program solvers (Ruby)	
	MIT Lincoln Laboratory , Lexington, MA <i>Summer Research Intern, Human Language Technology</i>	June 2016 - August 2016
	<ul style="list-style-type: none">• Prosody Classification Used machine learning to determine feasibility of automatically annotating speech utterances to make text-to-speech output sound more natural (MATLAB). Modeled stress, duration, and pitch of syllables to find correlation among prosodic features	
	Garmin International , Olathe, KS <i>Software Engineer Intern</i>	May 2015 - August 2015
	<ul style="list-style-type: none">• Developed image viewing feature to display images located on SD cards on marine chart plotter multi-function displays (C, GarminOS)• Implemented file selection dialog page template to enable developers to create customized menus and to increase code reuse (C, GarminOS)	
	Pepco Holdings Inc. , Newark, DE <i>Engineering Intern</i>	May - August 2012, 2013, 2014
	<ul style="list-style-type: none">• Forecast power load to predict growth and substation capacity overloads (Cyme, ArcGIS)• Developed plan for new capacitor placement as part of smart grid implementation (Cyme, ArcGIS, Microstation)	
HONORS AND AWARDS	Tau Beta Pi (engineering honorary) — member Upsilon Pi Epsilon (computer science honorary) — member, <i>Treasurer (August 2016 - May 2017)</i> IEEE Eta Kappa Nu (electrical engineering honorary) — member Dean's List (Fall 2013 through Spring 2017 semesters) David H. Levy Outstanding Senior Award (Spring 2017) Russell R. Pfeiffer Outstanding Junior Award (Spring 2016) Outstanding Sophomore Award (Spring 2015) Antoinette Frances Dames Award for Productive Scholarship in Engineering (Spring 2015)	
SERVICE	Journal Reviewer TACL 2017 (secondary reviewer) NAACL 2018 (secondary reviewer)	

ACTIVITIES**Washington University Academic Team**, St. Louis, MO**August 2013 - May 2017***President*

- Organized tournament fundraisers, practices, and team events

Treasurer

- Oversaw funds, expenses, reimbursements, and budget for tournaments and practices

Coder Dojo, St. Louis, MO**September 2014 - May 2016***Volunteer*

- Taught middle school students basic web development

SKILLS**Languages:** Python, Java, C, MATLAB, C++, Ruby, VHDL, HTML, CSS**Software:** Eclipse, Microsoft Visual Studio, Emacs, Git, SVN, ArcGIS, Microstation, Cyme