GENEVIEVE FLASPOHLER

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EDUCATION

Massachusetts Institute of Technology & *September 2016 - Present*
Woods Hole Oceanographic Institution Joint Program
Ph.D. Student in Computer Science and Applied Ocean Engineering
Advisor: Yogesh Girdhar - *warp.whoi.edu*

Relevant coursework: Bayesian modeling and inference, machine learning, natural language processing

University of Michigan *September 2012 - June 2016*
B.S.E. in Computer Engineering
GPA: 3.980, *Summa Cum Laude*

Relevant coursework: digital signal processing, computer vision, data structures & algorithms, microprocessor systems, computer architecture, probability, autonomous robotics, operating systems

RESEARCH EXPERIENCE

Massachusetts Institute of Technology & Woods Hole Oceanographic Institution
Cambridge, MA *September 2016 - Present*

- Graduate Student Research Assistant, Electrical Engineering and Computer Science
- *Research interests*: marine robotics, robot autonomy, unsupervised machine learning, information theory, Bayesian inference

Woods Hole Oceanographic Institution
Woods Hole, MA *January 2015 - January 2016*

- Developed machine learning algorithms to classify gait and behavior of marine invertebrates
- Designed modification to custom emebedded sensor board, allowing the addition of peripheral sensors interfaced through I2C communication bus
- Ran live experiments on squid carrying embedded recording devices at the Woods Hole Laboratory

University of Michigan
Ann Arbor, MI *September 2014 - May 2015*

- Designed and prototyped custom embedded hardware to transmit and receive vibratory communications
- Developed on-off keying modulation and digital signal processing firmware to send and interpret vibratory signals in real-time
- Presented published work in the ACM Hot Wireless Workshop 2015, Paris, France

INDUSTRY EXPERIENCE

FANUC Robotics America
Rochester Hills, MI *May 2014 - August 2014*

- Developed a user-friendly, cross-browser compatible web interface for FANUC robot controllers
- Programmed robot showcase application for the International Machine Tools Show
- Gained proficiency in HTML, CSS, JavaScript and received FANUC robot safety and control training

CONFERENCE AND WORKSHOP PUBLICATIONS AND PRESENTATIONS

1. **Flaspohler, G.**, Roy, N., & Girdhar, Y. (September 2017). *Feature discovery and visualization of robot mission data using convolutional autoencoders and Bayesian nonparametric topic modeling.* Intelligent Robots and Systems (IROS), 2017 IEEE/RSJ International Conference on. IEEE, 2017.
2. **Flaspohler, G.**, Silva, T., Mooney, A., & Girdhar, Y. (2017, June). *Classifying dolphin whistles using convolutional neural networks.* Presentation at the meeting of the Acoustical Society of America 2017, Boston MA.
3. **Flaspohler, G.** (2017, February). *Enabling curious Bayesian marine robotic exploration.* Short talk at MIT Robocon 2017, Cambrdige MA.
4. Adkins, J.[1], **Flaspohler, G.**[1], & Dutta, P. (2015, September). *Ving: Bootstrapping the Desktop Area Network with a Vibratory Ping.* In Proceedings of the 2nd International Workshop on Hot Topics in Wireless (pp. 21-25). ACM.
5. **Flaspohler, G.** (2013, January). *Effects of prostheses on the metabolic cost of walking for lower-limb amputees.* Poster at the Michigan Research Community Symposium, Ann Arbor MI.

TEACHING EXPERIENCE

University of Michigan Ann Arbor, MI

EECS 281: Advanced Algorithms and Data Structures	January 2016 - June 2016
ENGR 100: Introduction to Human Centered Design	January 2013 - June 2015

AWARDS AND GRANTS

1. National Science Foundation Graduate Research Fellowship, $102,000 plus tuition (2016 - Present)
2. University of Michigan's Engineering Distinguished Achievement Award, $500 (May 2016)
3. University of Michigan's EECS William L. Everett Student Award of Excellence, $500 (May 2016)
4. University of Michigan's EECS Scholar, $500 (May 2016)
5. NSF REU Undergraduate Research Award, $1,500 (May 2015)
6. University of Michigan's Electrical Engineering and Computer Science Outstanding Achievement Award, $500 (May 2015)
7. University of Michigan's Marian Sarah Parker Prize, $1,000 (May 2015)
8. University of Michigan's Darl F. and Lorene O. Caris Dean?s Merit Scholarship full-ride, $130,000 (September 2012 - May 2016)

"When you want to build a ship,
do not begin by gathering wood,
cutting boards,and distributing work,
but awaken within the heart of man
the desire for the vast and endless sea."

- Antoine de Saint-Exupery