Nathan P Harada

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EXPERIENCE

University of Michigan Computer Science Dept. — Ann Arbor, MI
Graduate Student Research Assistant — August 2014 - Present

- Investigate new computational methods for predicting cardiac complications and morbidities.
- Apply machine learning techniques to segregate patients based on predicted postoperative atrial fibrillation risk.

iZotope, Inc. — Cambridge, MA
Digital Signal Processing Intern — Summer 2013

- Researched time and spectral pitch detection algorithms for audio pitch correction software.
- Implemented and evaluated pitch algorithm candidates and realized 10% improvement from current method, deployed in commercial software.
- Developed analysis and visualization frameworks for future algorithm improvements.

Digital Design Corporation — Arlington Heights, IL
Software Engineer — Summer 2010, 2011, 2012

- Designed and programmed intercom control software suite with a team of engineers.
- Developed test equipment, firmware, and various I2C sensors for intercoms with other hardware engineers.
- Researched and designed an active noise cancelling system for industrial blowers with a cross-functional team.

Digital Design Corporation — Arlington Heights, IL
Software Intern — Summer 2008, 2009

- Developed test applications for commercial intercom systems in .NET and Python.

The Burbz Newspaper — Lake Zurich, IL
Website Administrator — February 2009 - June 2009

- Managed web-based assets and wrote web-scraping scripts for a local newspaper.

EDUCATION

Masters of Science in Computer Science
University of Michigan, Ann Arbor, MI
Expected Graduation April 2016 (GPA: 3.65/4.00)

Bachelors of Science in Electrical Engineering
Tufts University, Medford, MA
Eta Kappa Nu officer, Dean's list each term
Graduated May 2014 (GPA: 3.73/4.00)

SKILLS

Software: Linux, Windows, SciPy/NumPy, Caffe, Flask
Languages: Python, C, C++, MATLAB, C#, Clojure, Haskell, Assembly
Skills: Machine Learning, Deep Learning, Signal Processing, Microprocessors, Hardware

PUBLICATIONS

Harada N, Saeed M, Baveja S, Syed Z. Evaluating the Utility of a Multi-factorial Computational Model and Simplified Multi-factorial Risk Score to Predict Postoperative Atrial Fibrillation Following Cardiothoracic Surgery, American Heart Association (AHA) Scientific Sessions, 2015.