

EXPERIENCE

Cruise Automation

Machine Learning Engineer

Computer vision, machine learning, robot cars.

San Francisco, CA

Feb 2018 – Present

Fitbit, Inc.

Research Algorithms Scientist

Spearheaded effort to introduce deep learning to Fitbit R&D. Developed and validated Tensorflow-based networks on a variety of data modalities, which included building associated training infrastructure. Built machine learning tooling for model deployment both to the cloud as well as low-power microcontrollers.

Researched machine learning and signal processing methods for a variety of data, including images, accelerometer/gyroscope, PPG, and audio. Wrote firmware that ships on products, including on the Fitbit Ionic and Versa. Acted as a technical mentor and leader, presenting at internal talks and mentoring interns.

San Francisco, CA

June 2016 – Feb 2018

University of Michigan Computer Science Dept.

Graduate Student Research Assistant

Investigated methods for predicting cardiac complications by applying convolutional to sensor data such as ECG. Developed data pipelines and applied statistical methods to segregate patients based on predicted postoperative atrial fibrillation risk. Built and open sourced *Mri*, a web based tool for monitoring and validating deep learning models.

Researched advanced methods of static compiler optimization by applying deep sequence models to LLVM intermediate language.

Ann Arbor, MI

August 2014 – June 2016

iZotope, Inc.

Digital Signal Processing Intern

Cambridge, MA

Summer 2013

Digital Design Corporation

Software Intern (began at age 16)

Arlington Heights, IL

Summer 2008/09/10/11/12

EDUCATION

University of Michigan, Ann Arbor, MI

Masters of Science in Computer Science

2014 – 2016, GPA 3.77

Tufts University, Medford, MA

BSEE, Harry Poole Burden Prize in Electrical Engineering, Magna Cum Laude

2010 – 2014, GPA 3.73

SKILLS

Software: Linux, SciPy/NumPy/Pandas, Tensorflow, Caffe, Flask

Languages: Python, C, C++, MATLAB, C#, Java, Assembly

Skills: Machine Learning, Deep Learning, Computer Vision, Signal Processing, Microprocessors, Hardware

PUBLICATIONS

Zekany S, **Harada N**, Rings D, Laurenzano M, Tang L, Mars, J. CrystalBall: Statically analyzing runtime behavior via deep sequence learning, MICRO 2016

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.