Mark Heimann

Algorithmia
999 3rd Avenue, Suite 3400
Seattle, WA 98104

Phone: 724-713-3476
Email: mark@algorithmia.io
LinkedIn: markheimann
GitHub: markheimann

Education

Fall 2015– **Ph.D., Computer Science**, *University of Michigan*, Ann Arbor, Michigan, USA.

2013-2015 **M.S., Computer Science**, *Washington University in St. Louis*, St. Louis, MO, USA.
Graduate Certificate in Data Mining and Machine Learning.

2011-2015 **A.B., Economics and Mathematics** *cum laude* with high distinction in economics, *Washington University in St. Louis*, St. Louis, MO, USA.

Experience

Summer 2015 **Software Engineer Intern**, *Algorithmia*, Seattle, WA, USA.
Researched and implemented state-of-the-art machine learning algorithms and applications. These include a face recognition system using OpenCV and local binary pattern histograms as well as a word2vec-based distance metric for documents particularly geared to improving recommendation accuracy on corpora whose texts have fewer directly overlapping words. Also worked on methods for automated hyperparameter tuning of machine learning algorithms with Bayesian optimization.

2014-2015 **Teaching Assistant**, *Washington University in St. Louis*, St. Louis, MO, USA.
Held office hours and lab sessions, graded, and answered students' questions for Introduction to Machine Learning (CSE 417A), Multi-Agent Systems (CSE 516A), and Fair Division in Theory and Practice (CSE/Pol Sci 245A).

Summer 2014 **Research Assistant**, *Harvey Mudd College*, Claremont, CA, USA.
Used techniques from machine learning and formal language theory to improve computer generation of original jazz solos. Wrote up contributions as a Java implementation for Impro-Visor, an open-source software program for jazz improvisation, and a working paper, as well as a poster presented with the rest of the Impro-Visor team. NSF REU program.

Summer 2013 **Research Assistant**, *University of North Carolina at Greensboro*, Greensboro, NC, USA.
Proved previous conjectures and new results about subword complexity of partial words, a problem studied in mathematics and computer science with applications to fields such as computational biology. Wrote up results in a working paper. NSF REU Program.

Summer 2012 **Student Intern**, *Washington University School of Medicine*, St. Louis, MO, USA.
Studied biostatistics at the introductory graduate level through the NHLBI's SIBS program and used R to apply these methods to biomedical datasets as part of an accompanying practicum.

Honors & Awards

2015 **Adam Smith Prize for Excellence in Economics**, *Washington University in St. Louis.*
Presented to one undergraduate in the economics department each year for writing an outstanding senior thesis. Thesis title: "Motivating Present-Biased Agents to Complete Tasks."

2011-2015 **Arnold J. Lien Scholarship**, *Washington University in St. Louis.*
Four-year full-tuition merit scholarship, awarded to up to four incoming freshmen each year who demonstrate academic potential particularly in the social and behavioral sciences.

Technical Skills

Reasonably proficient in: Java, Python.
Moderate experience with: C++, R, MATLAB, Mathematica.
Limited exposure to: SAS, STATA, SPSS. Objective C, HTML, CSS.