Peter Kraft

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EDUCATION

Stanford University, Stanford CA
Ph.D. Candidate in Computer Science beginning September 2017.

Harvard University, Cambridge MA
Received Bachelor's Degree *magna cum laude* with Highest Honors in Computer Science May 2017. Finalist for Computing Research Association (CRA) Outstanding Undergraduate Researcher Award. Received Hoopes Prize for excellence in undergraduate research for senior thesis.

Munster High School, Munster IN
Graduated with Highest Honors, June 2013. Placed 5th nationwide in Intel Science Talent Search 2013.

EXPERIENCE

Graduate Student September 2017—Present
Computer Science Department, Stanford University Stanford, CA

- In rotations at Stanford University focusing in systems research.
- Currently rotating with Professor John Ousterhout developing a new thread library, Arachne.

Research Assistant June 2016—May 2017
Systems Group, Harvard University Cambridge, MA

- Developing ASC (Automatically Scalable Computation) project under Professor Margo Seltzer.
- Project aims to speed up unmodified binaries through automatic parallelization.
- Developed system for dynamically analyzing data dependencies of computations.
- Project became senior thesis, received Hoopes Prize for excellence in undergraduate research.

Teaching Fellow January 2017—May 2017
CS161, Harvard University Cambridge, MA

- Teaching fellow for the course CS161: Operating Systems.
- Duties include teaching hourlong weekly sections, holding office hours, and grading problem sets and exams.

Research Assistant May 2016—November 2016
HarvardNLP Group, Harvard University Cambridge, MA

- Worked under Professor Alexander Rush to develop system for predicting congressional roll-call votes.
- Created novel representation of problem that substantially outperformed prior models.
- Work accepted to and presented at Empirical Methods in Natural Language Processing (EMNLP) 2016.

Software Development Intern May 2015—August 2015
Percolata Palo Alto, CA

- Worked in a small agile team of engineers to build a system that uses video to analyze people's behavior in stores.
- Programmed primarily in Python and Java using OpenCV, integrated system into Android platform and into production data science pipeline.

Research Assistant and Developer December 2013—May 2015
Leschziner Lab, Harvard University Cambridge, MA

- Independently implemented image processing software in Python using OpenCV to automate common electron microscopy techniques, significantly improving on prior programs.
- Integrated program into popular open-source microscopy package Leginon. Program successfully used by lab for active research.

PUBLICATIONS

Peter Kraft, Hirsh Jain, Alexander Rush, "An Embedding Model For Predicting Roll-Call Votes." Empirical Methods for Natural Language Processing 2016.

Peter Kraft, "Automatically Scalable Computation That Is More Scalable and Automatic." Senior Thesis, Harvard University.