kshi@cs.columbia.edu

**Education** Ph.D. Computer Science

Columbia University Fall 2014 - present

Coadvised by Daniel Hsu and Allison Bishop

**M.A. Mathematics** (joint degree)

University of Pennsylvania Fall 2012 - Spring 2014

Advised by Sanjeev Khanna. Thesis: Fast Circuit Satisfiability

**B.S. Computer Science and Mathematics** 

University of Pennsylvania Fall 2010 - Spring 2014

#### Experience

#### Data science intern

Button

New York City

May 2017 - August 2017

Researched and implemented models for adaptive anomaly detection in Python. Deployed model to run on production data in real time.

### Visiting graduate student

Simons Institute for the Theory of Computing

Berkeley, CA

January 2017 - April 2017

Program on Foundations of Machine Learning

# Computer vision intern

Lily Robotics

Boston, MA

June 2014 - Aug 2014

Researched and implemented a vision-based people tracking system in C++ and OpenCV for use on a quadrotor platform. Used techniques from multiscale object detection, online machine learning, and sensor fusion

Research intern

MIT Lincoln Laboratory

Lexington, MA

May 2013 - August 2013

Designed feature extraction algorithms for time series obtained from radar. Classification accuracy using this improved upon current statistical methods. Gave group presentation and wrote internal paper

# **Papers**

## Linear regression without correspondence

Daniel Hsu, Kevin Shi, Xiaorui Sun

To appear in Neural Information Processing Systems (NIPS) 2017

### Correspondence retrieval

Alexandr Andoni, Daniel Hsu, Kevin Shi, Xiaorui Sun In Conference on Learning Theory (COLT) 2017

# Optimal neural tuning for arbitrary stimulus priors

Jimmy Wang, Kevin Shi, Alan Stocker, Daniel Lee

In Computational and Systems Neuroscience (COSYNE) 2012

#### **Teaching**

Teaching Assistant - Columbia University

- COMS 4444 Programming and Problem Solving Fall 2016
- COMS 4772 Advanced Machine Learning Spring 2016
- COMS 6998 Algorithms for Massive Data -Fall 2015

Teaching Assistant - University of Pennsylvania

- CIS 320 Algorithms Spring 2013
- CIS 262 Theory of Computation Fall 2012

### **Awards**

SAP Code Slam Finals - 1st Place - October 2012

Worldwide online programming competition with a \$5k scholarship

Putnam Top 500 - December 2012

TripAdvisor Programming Challenge - 2nd place at Columbia University - Fall 2016

## Skills

Python, Matlab, Java, C++, OpenCV