

## EDUCATION

*Bachelor of Science*, Electrical Engineering and Computer Sciences  
University of California Berkeley, expected graduation in May 2017

## WORK EXPERIENCE

*Student Developer - Google Summer of Code 2016* *Summer 2016*

- Designed data-driven algorithms to optimize frequency allocation for wireless devices
- Algorithm implemented on nodewatcher, an open source monitoring platform
- nodewatcher is currently running on 378 nodes that were set up by volunteers
- Used the Django framework with PostgreSQL along with git VCS  
<https://summerofcode.withgoogle.com/projects/#5073374858444800>

*Full Stack Developer - Stanford University (Social Algorithms Lab)* *Spring 2016 - Fall 2016*

- Designed and built a web application to test iterative decision making
- Experiments had over 2500 participants and have shown convergence for L2 utility functions
- Developed with the Meteor framework (based on Node.js)
- Deployment integrated with Amazon AWS and Amazon MTurk platforms  
<https://github.com/cdavam/harp>

*Full Stack Developer - UC Berkeley (Wireless Foundations Lab)* *Fall 2014 - Spring 2016*

- Built a crowdsourcing platform to enhance training set quality for machine learning algorithms
- 71% of agents performed optimally under our mechanism (versus 53% for state-of-the-art)
- Developed with Meteor, SpaceBars with a MongoDB database and supports Docker.
- Research funded by Intel and published in SCUGC 2015  
<https://www.github.com/cdavam/bts>

*Teaching Assistant - UC Berkeley (EE 126: Probability in EECS)* *Spring 2016*

- Created a stochastic optimization project based on the Settlers of Catan boardgame (Rated best project of the class)
- Created a lab that introduces students to auction theory

## PUBLICATIONS & POSTERS

- **Truth Serums for Massively Crowdsourced Evaluation Tasks.** Vijay Kamble, David Marn, Nihar Shah, Abhay Parekh, Kannan Ramachandran. *Submitted to JAIR. Preprint available on arXiv.*
- **Collaborative Optimization for Collective Decision-making in Continuous Spaces.** Nikhil Garg, Vijay Kamble, Ashish Goel, David Marn, Kamesh Munagala. *Submitted to WWW 2017.*
- **IncentiCrowd: A Novel Crowdsourcing Data Collection Platform.** David Marn, Nihar Shah, Vijay Kamble, Abhay Parekh, Kannan Ramchandran. Poster presented at the UC Berkeley EECS Undergraduate Research Symposium.
- **The Quest to Truthfulness: Testing Truth Serums for Massively Crowdsourced Evaluation Tasks.** David Marn, Nihar Shah, Vijay Kamble, Abhay Parekh, Kannan Ramchandran. Poster presented at Techcon 2016 in Austin, TX.

## AWARDS & FELLOWSHIPS

- James H. Eaton Memorial Scholarship 2016
- Ad Futura Fellowship 2013-2017

## SELECTED COURSEWORK

- Machine Learning (CS 189)
- Algorithms, Intractable Problems (CS 170)
- Communication Networks (EE 122)
- Stochastic Processes in Systems (EE 226A)
- Operating Systems (CS 162)
- Digital Signal Processing (EE 123)

## LANGUAGES AND FRAMEWORKS

- *Frameworks & Technologies*: Meteor, Django, Amazon AWS, MongoDB, Docker, git, vim  
*Languages (listed by proficiency)*: Python, Javascript, Java, R, C