

# Victoria Dean

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## Education

*Massachusetts Institute of Technology*

2013-2017

- Working towards BS in Computer Science and Engineering

*Castilleja School*

2009-2013

- GPA: 3.88/4.00 (weighted: 4.31)
- ACT Composite: 35 of 36; SAT Math II subject test: 800

## Experience and Relevant Projects

*Coursera*, Software Engineering Intern

2013 Summer

- Created architecture for internationalization of Coursera's home pages
- Shortened page load time by 10-20% (measured at users' browsers)
- Worked with Django, Github, backbone.js, MySQL, HTML, and CSS

*FIRST Robotics Castilleja Gatorbotics Team 1700*, Programming Lead (2011-2013)

2009-2013

- Code for 2012 season included use of multiple PID controllers and image tracking to identify and automatically aim at basketball hoops (Java). See <https://github.com/gatorbotics1700/FRC-2012>
- Led programming workshops to teach programming techniques to other team members.

*UC Santa Cruz Astronomy Research Internship*

2011 & 2012 Summers

- Worked with Prof. Raja Guhathakurta on searching spectra for distant galaxies
- Developed pattern matching software to automatically identify such galaxies
- Wrote research paper and presented poster at the 2013 American Astronomical Society meeting

*Khan Academy Discovery Lab*, Student Counselor

2012 Summer

- Assisted teachers in two-week session for middle school students interested in math and science
- Helped lead exercises in probability, economics, engineering, and computer science.

## Independent Projects

- Programmed Naïve-Bayes bag of words model to predict positive and negative Yelp reviews from review text in Java for Mathematical Modeling class (2012)
- Wrote report on Reed-Solomon error correction for Number Theory class, including example code in Python.
- Various personal projects, including a Julia set fractal viewer in Java and various automated constraint-based group assignment programs for class and school activities in Java.

## Skills

*Programming Languages*

- Proficient in: Java, Python, JavaScript, IDL
- Familiar with: PHP, C, LabVIEW

*Languages*

- English (native), Mandarin Chinese (conversational), Spanish (beginner)

## Publications

V. Dean, P. Guhathakurta, K. McCormick, Z. Zheng. *Search for High-Redshift Lyman-Alpha Emitters in the DEEP3 Galaxy Redshift Survey*. Poster presented at American Astronomical Society annual meeting 2013. (Link to abstract: <http://adsabs.harvard.edu/abs/2013AAS...22114742D#!>)

K. McCormick, A. Alvarez-Buylla, V. Dean, P. Guhathakurta, K. Lai, M. Sawicki, B. Lemaux, C. Grishaw-Jones. *Semi-automated Search For Lyman-alpha And Other Emission Lines In The DEEP2 And DEEP3 Databases*. Poster presented at American Astronomical Society annual meeting 2012. (Link to abstract: <http://adsabs.harvard.edu/abs/2012AAS...21934004M#!>)

## Honors and Awards

- Intel Science Talent Search Semifinalist 2013 (one of 300 in U.S.)
- National Merit Finalist 2013
- AP Scholar with Distinction
- Castilleja School *Cum Laude* Society