

# Cody Austun Coleman

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## Education

<b>Stanford University</b> <i>Doctor of Philosophy in Computer Science</i>	<b>Stanford, CA</b> <i>Present</i>
<b>Massachusetts Institute of Technology (MIT)</b> <i>Master of Engineering in Electrical Engineering and Computer Science, 5.0/5.0</i> Supervisor: Isaac Chuang	<b>Cambridge, MA</b> <i>February 2015</i>
<b>Massachusetts Institute of Technology (MIT)</b> <i>Bachelor of Science in Electrical Engineering and Computer Science, 4.9/5.0</i>	<b>Cambridge, MA</b> <i>June 2013</i>
<b>University of Cambridge</b> <i>Cambridge-MIT Exchange (CME) in Electrical Engineering</i>	<b>Cambridge, UK</b> <i>June 2012</i>

## Experience

### Professional & Research.....

<b>Jump Trading, Vendor Data Group</b> <i>Junior Data Scientist</i>	<b>Chicago, IL</b> <i>June 2015–August 2016</i>
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- Communicated internally and externally to understand needs, identify opportunities, diagnose problems, and maintain reliability
- Constructed frameworks and pipelines to analyze data from a variety of vendors to automatically create and update security master, corporate actions, pricing and entity master data

<b>Davidson College, DavidsonX and DavidsonNext</b> <i>Educational Technology Consultant</i>	<b>Davidson, NC</b> <i>March 2015–June 2015</i>
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- Automated data processing for 5 DavidsonX Massive Open Online Courses (MOOCs) and 64 DavidsonNext blended AP courses

<b>MIT, Office of Digital Learning and MITx</b> <i>Research Assistant</i>	<b>Cambridge, MA</b> <i>February 2013–February 2015</i>
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- Investigated teacher enrollment in HarvardX and MITx courses in order to redefine the target audience of MOOCs
- Distilled tracking log information from the edX platform into informative features about student behavior and performance
- Adapted Latent Dirichlet Allocation (LDA) from natural language processing to uncover behavioral patterns in Massive Open Online Courses (MOOCs) and accurately predict student drop out

<b>Harvard University, HarvardX</b> <i>Research Assistant</i>	<b>Cambridge, MA</b> <i>November 2013–May 2014</i>
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- Explored the impact of spaced study session (inspired by spaced practice phenomenon) in HarvardX courses

<b>Google, Associate Product Manager (APM) Internship</b> <i>YouTube Analytics Intern</i>	<b>Zurich, Switzerland</b> <i>June 2012–August 2012</i>
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- Managed a team of 12 to launch estimated time watched and metric comparisons across the world
- Designed initial draft of playlist analytics for YouTube's curators
- Collaborated with numerous teams in YouTube to deal with issues concerning publicity, privacy, accessibility and discovery

<b>Google, Building Opportunity in Leader Development (BOLD) Internship</b> <i>Local Search Quality Intern</i>	<b>Mountain View, CA</b> <i>June 2011–August 2011</i>
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- Programmed tools for large-scale data manipulation and analysis to expedite and improve spam detection in Google Places
- Created and administered training documents, videos, exercises, and workshops globally for both R and Google BigQuery

<b>MISTI Mexico, Iniciativa OCW</b> <i>Web Developer &amp; Team Representative at el Tecnológico de Monterrey</i>	<b>Mexico City, Mexico</b> <i>June 2010–August 2010</i>
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- Provided extra resources for students at Mexican universities by building a website to map MIT's online material to their courses

### Teaching.....

<b>MIT, EECS Department</b> <i>Founder's Journey (6.933) Teaching Assistant</i>	<b>Cambridge, MA</b> <i>January 2013–May 2014</i>
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- Founded and directed an initiative to help students offset early expenses in evaluating their ideas by awarding monetary grants
- Mentored students and provided feedback on their ideas in order to hone their entrepreneurial skills

**MIT**, Global Startup Labs formerly known as AITI

**Bangalore, India**

*Technical Assistant*

*June 2013–August 2013*

- Taught 32 India university students Ruby on Rails and the fundamentals of web development
- Guided 10 teams as they developed prototypes and pitched to local venture capitalists and accelerators

**MIT**, Physics Department & Experimental Study Group (ESG)

**Cambridge, MA**

*Teaching Assistant*

*September 2010–December 2010*

- Assisted students during class and office hours by working through problems and answering questions
- Taught math review sessions that went over many difficult math concepts in physics to help students who were struggling

## Skills

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**Programming Languages:** Python, C, C++, SQL,  $\text{\LaTeX}$

**Web:** HTML, CSS, JavaScript, SCSS, CoffeeScript

**Applications:** Vi/Vim, Git, tmux, MySQL

**Operating Systems:** Linux, Redhat, macOS, Windows

## Leadership

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**MIT**, Bernard M. Gordon MIT Engineering Leadership Program (GELP)

**Cambridge, MA**

*GEL Year One (GEL1)*

*September 2012–June 2013*

GEL supplements MIT's technical education with the leadership skills that prepare young engineers for effective careers in engineering

**MIT**, Eta Kappa Nu (HKN) Honor Society for EECS

**Cambridge, MA**

*President*

*May 2012–May 2014*

- Managed MIT's top academic EECS students to host several large events and services including tutoring and course reviews

**MIT**, Member of Undergraduate Student Advisory Group in EECS (USAGE)

**Cambridge, MA**

*Member*

*August 2011–May 2014*

- Led efforts to design and build a new student lounge for EECS undergraduate and masters students
- Worked with EECS students to represent student interests on issues including new degree requirements and research programs

**Ameson Chinese Elite Program**

**Beijing, China**

*MIT Student Ambassador*

*July 2011*

- Represented MIT in panel discussions about peacekeeping, terrorism, and new energy

**MIT**, 6.470 Web Programming Competition

**Cambridge, MA**

*Team Leader*

*January 2011*

- Built a resume editor and management system that won Utility, HTML5, and audience choice awards, totaling \$2000 in prizes

## Honors

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### Fellowships & Scholarships.....

- NSF Graduate Research Fellow 2015
- Stanford EDGE Doctoral Fellow 2015
- ACM Richard Tapia Scholarship 2015
- Google BOLD Immersion Scholar 2011
- Quest Scholar 2010
- MIT Club of Northern New Jersey Scholar 2010

### Awards.....

- MIT Industrial Advisory Council for the Office of Minority Education (IACME) Student Prize 2015
- MIT EECS Paul Penfield Student Service Award 2014
- Google Patent Award 2012

### Professional Memberships.....

- Tau Beta Pi (TBP) National Engineering Honor Society 2013
- IEEE Eta Kappa Nu (HKN) Honor Society 2012

## Conference Activity/Participation

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◦ MIT Learning International Networks Consortium (LINC)	2016
◦ Harvard-MIT Online Learning Summit	2015
◦ American Educational Research Association (AERA) Annual Meeting	2015
◦ ACM Conference on Learning at Scale	2015
◦ ACM Richard Tapia Celebration of Diversity in Computing Conference	2015
◦ MIT Learning International Networks Consortium (LINC)	2013

## Publications

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- [1] **Cody A. Coleman**. Identifying and characterizing subpopulations in massive open online courses. Master's thesis, 77 Massachusetts Ave, Cambridge, MA 02139, 2015.
- [2] **Cody A. Coleman**, Daniel T. Seaton, and Isaac Chuang. Probabilistic use cases: Discovering behavioral patterns for predicting certification. In *Proceedings of the Second ACM conference on Learning@Scale conference*. ACM, 4 2015.
- [3] Andrew D. Ho, Isaac Chuang, Justin Reich, **Cody A. Coleman**, Jacob Whitehill, Curtis G. Northcutt, Joseph J. Williams, John D. Hansen, Glenn Lopez, and Rebecca Petersen. Harvardx and mitx: Two years of open online courses fall 2012-summer 2014. *Social Science Research Network*, 3 2015. <http://ssrn.com/abstract=2586847>.
- [4] Yohsuke Miyamoto, **Cody A. Coleman**, Joseph Williams, Jacob Whitehill, Sergiy Nesterko, and Justin Reich. Beyond time-on-task: The relationship between spaced study and certification in moocs. *Journal of Learning Analytics*, 2(2):47–69, 2015.
- [5] Daniel T Seaton, **Cody A. Coleman**, and Jon P. Daries. MIT institutional research report: Teacher enrollment in MITx open online courses, 1 2015. [http://web.mit.edu/ir/mitx/MOOC\\_teachers\\_supp\\_material.pdf](http://web.mit.edu/ir/mitx/MOOC_teachers_supp_material.pdf).
- [6] Daniel T. Seaton, **Cody A. Coleman**, Jon P. Daries, and Isaac Chuang. Enrollment in mitx moocs: Are we educating educators. *Educause Review (February 2015)*. <http://er.educause.edu/articles/2015/2/enrollment-in-mitx-moocs-are-we-educating-educators>.
- [7] Jacob Whitehill, Joseph J. Williams, Glenn Lopez, **Cody A. Coleman**, and Justin Reich. Beyond prediction: First steps toward automatic intervention in mooc student stopout. In *Proceedings of the 8th International Conference on Educational Data Mining*. International Educational Data Mining Society, 2015.