

# Cody Austun Coleman

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## Education

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

## Experience

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### Professional & Research

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<b>Jump Trading, Vendor Data Group</b> <i>Junior Data Scientist</i> <ul style="list-style-type: none"><li>Engineered systems to curate a centralized source of research and reference data for the firm, including Trading, Research, and Technology to Risk, Middle Office and Accounting teams</li><li>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</li><li>Communicated internally and externally to understand needs, identify opportunities, diagnose problems, and maintain reliability</li></ul>	<b>Chicago, IL</b> <i>June 2015–August 2016</i>
<b>Davidson College, DavidsonX and DavidsonNext</b> <i>Educational Technology Consultant</i> <ul style="list-style-type: none"><li>Automated data processing for 5 DavidsonX Massive Open Online Courses (MOOCs) and 64 DavidsonNext blended AP instruction courses</li></ul>	<b>Remote</b> <i>March 2015–June 2015</i>
<b>MIT, Office of Digital Learning and MITx</b> <i>Research Assistant</i> <ul style="list-style-type: none"><li>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</li><li>Investigated teacher enrollment in HarvardX and MITx courses in order to redefine the target audience of MOOCs</li><li>Distilled tracking log information from the edX platform into informative features about student behavior and performance</li></ul>	<b>Cambridge, MA</b> <i>February 2013–February 2015</i>
<b>Harvard University, HarvardX</b> <i>Research Assistant</i> <ul style="list-style-type: none"><li>Explored the impact of spaced study session (inspired by spaced practice phenomenon) in HarvardX courses</li></ul>	<b>Cambridge, MA</b> <i>November 2013–May 2014</i>
<b>Google, Associate Product Manager (APM) Internship</b> <i>YouTube Analytics Intern</i> <ul style="list-style-type: none"><li>Redesigned existing features and developed new features for YouTube Analytics</li><li>Managed a team of 12 to launch estimated time watched and metric comparisons across the world</li><li>Collaborated with numerous teams in YouTube to deal with issues concerning publicity, privacy, accessibility and discovery</li></ul>	<b>Zurich, Switzerland</b> <i>June 2012–August 2012</i>
<b>Google, Building Opportunity in Leader Development (BOLD) Internship</b> <i>Local Search Quality Intern</i> <ul style="list-style-type: none"><li>Programmed tools for large-scale data manipulation and analysis to expedite and improve spam detection in Google Places</li><li>Created and administered training documents, videos, exercises, and workshops globally for both R and Google BigQuery</li></ul>	<b>Mountain View, CA</b> <i>June 2011–August 2011</i>
<b>MISTI Mexico, Iniciativa OCW</b> <i>Web Developer &amp; Team Representative at el Tecnológico de Monterrey</i> <ul style="list-style-type: none"><li>Engineered a website that mapped MIT online course material to three Mexican universities in order to improve accessibility for students and staff</li></ul>	<b>Mexico City, Mexico</b> <i>June 2010–August 2010</i>

## Teaching

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**MIT, EECS Department**

**Cambridge, MA**

*Founder's Journey (6.933) Teaching Assistant*

*January 2013–May 2014*

- 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, so students could have a better understanding of the material
- Taught math review sessions, which went over many difficult math concepts in physics, in order to help students who were struggling, so they could still succeed in their coursework

## Skills

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

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

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

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

## Leadership

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**MIT, Eta Kapp 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

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- NSF Graduate Research Fellow
- Google BOLD Immersion Scholar
- MIT Club of Northern New Jersey Scholar
- Stanford EDGE Doctoral Fellow
- Quest Scholar

### Awards

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

### Professional Memberships

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- Tau Beta Pi (TBP) National Engineering Honor Society
- IEEE Eta Kappa Nu (HKN) Honor Society
- National Society Collegiate Scholars (NSCS)

## References

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### Academia

- Isaac Chuang - ichuang@mit.edu
- Anantha Chandrakasan - anantha@mtl.mit.edu
- Angela Duckworth - aduckworth@characterlab.org

### Industry

- Lindsay Tobolik - ltobolik@jumptrading.com
- James Buckney - jbuckney@jumptrading
- Vandana Bharvani - vandana@bharvani.com

## 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. *Available at SSRN 2586847*, 2015.
- [4] Yohsuke R. Miyamoto, **Cody A. Coleman**, Joseph J. Williams, Jacob Whitehill, Sergiy O. Nesterko, and Justin Reich. Beyond time-on-task: The relationship between spaced study and certification in MOOCs. *Social Science Research Network*, 1 2015. <http://ssrn.com/abstract=2547799>.
- [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)*, 2015.
- [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. *Available at SSRN 2611750*, 2015.