Cody Austun Coleman

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Education

Stanford University   **Stanford, CA**
Doctor of Philosophy in Computer Science, 4.0/4.0   *September 2016–Present*
Supervisor: Matei Zaharia and Peter Bailis

Massachusetts Institute of Technology (MIT)   **Cambridge, MA**
Master of Engineering in Electrical Engineering and Computer Science, 5.0/5.0   *September 2013–Feburary 2015*
Supervisor: Isaac Chuang

Massachusetts Institute of Technology (MIT)   **Cambridge, MA**
Bachelor of Science in Electrical Engineering and Computer Science, 4.9/5.0   *September 2009–June 2013*

Experience

Research

Stanford, DAWN Project   **Stanford, CA**
Researcher   *June 2017–Present*
- Founded MLPerf with researchers and engineers from Google, Harvard, and Baidu and gained the support of over 30 organizations
- Led DAWNBench, an end-to-end deep learning benchmark and competition, to an over a $1000\times$ improvement in ImageNet training time with outside submissions from teams including Google, fast.ai, Intel, and Alibaba

MIT, Office of Digital Learning and MITx   **Cambridge, MA**
Research Assistant   *Feburary 2013–Feburary 2015*
- 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

Harvard University, HarvardX   **Cambridge, MA**
Research Assistant   *November 2013–May 2014*
- Explored the impact of spaced study sessions (inspired by spaced practice phenomenon) in HarvardX courses

Professional

Jump Trading, Vendor Data Group   **Chicago, IL**
Junior Data Scientist   *June 2015–August 2016*
- 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

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

Google, Associate Product Manager (APM) Internship   **Zurich, Switzerland**
YouTube Analytics Intern   *June 2012–August 2012*
- 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

Google, Building Opportunity in Leader Development (BOLD) Internship   **Mountain View, CA**
Local Search Quality Intern   *June 2011–August 2011*
- 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

MISTI Mexico, Iniciativa OCW · **Mexico City, Mexico**
Web Developer & Team Representative at el Tecnológico de Monterrey *June 2010–August 2010*
o Provided extra resources for students at Mexican universities by building a website to map MIT's online material to their courses

Teaching

MIT, EECS Department **Cambridge, MA**
6.933 Founder's Journey Teaching Assistant *January 2013–May 2014*
o Founded and directed an initiative to help students offset early expenses in evaluating their ideas by awarding monetary grants
o 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*
o Taught 32 India university students Ruby on Rails and the fundamentals of web development
o Guided 10 teams as they developed prototypes and pitched to local venture capitalists and accelerators

MIT, Physics Department & Experimental Study Group (ESG) **Cambridge, MA**
8.01 Classical Mechanics Teaching Assistant *September 2010–December 2010*
o Assisted students during class and office hours by working through problems and answering questions
o Taught math review sessions that went over many difficult math concepts in physics to help students who were struggling

Leadership

MIT, Eta Kapp Nu (HKN) Honor Society for EECS **Cambridge, MA**
President *May 2012–May 2014*
o Managed MIT's top academic EECS students to host several large events and services including tutoring and course reviews

MIT, Undergraduate Student Advisory Group in EECS (USAGE) **Cambridge, MA**
Member & Student Lounge Committee Leader *August 2011–May 2014*
o Led efforts to design and build a new student lounge for EECS undergraduate and masters students
o 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*
o Represented MIT in panel discussions about peacekeeping, terrorism, and new energy

MIT, 6.470 Web Programming Competition **Cambridge, MA**
Team Leader *January 2011*
o Built a resume editor and management system that won Utility, HTML5, and audience choice awards, totaling $2000 in prizes

Honors

Fellowships & Scholarships

o NSF Graduate Research Fellow	2015
o Stanford Enhancing Diversity in Graduate Education (EDGE) Doctoral Fellow	2015
o ACM Richard Tapia Scholar	2015
o MITx Fellow	2013
o Google Build Opportunities for Leadership & Development (BOLD) Immersion Scholar	2011
o Quest Scholar	2010
o MIT Club of Northern New Jersey Scholar	2010

Awards

o Facebook Hardware & Software Systems Research Award	2018
o Stanford School of Engineering Diversity Recruitment Award	2016
o MIT Industrial Advisory Council for the Office of Minority Education (IACME) Student Prize	2015
o MIT EECS Paul Penfield Student Service Award	2014

o Google Patent Award   2012

Professional Memberships..
o MIT Gordon Engineering Leadership (GEL) Program GEL1   2013
o Tau Beta Pi (TBP) National Engineering Honor Society   2013
o IEEE Eta Kappa Nu (HKN) Honor Society   2012

References

Isaac Chuang
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Professor of Physics
Senior Associate Dean of Digital Learning
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Publications

[1] **Cody Coleman**, Daniel Kang, Deepak Narayanan, Luigi Nardi, Tian Zhao, Jian Zhang, Peter Bailis, Kunle Olukotun, Chris Ré, and Matei Zaharia. Analysis of the time-to-accuracy metric and entries in the dawnbench deep learning benchmark. In *NeurIPS MLSys Workshop*, 2018. https://www-cs.stanford.edu/~matei/papers/2018/mlsys_dawnbench_analysis.pdf.

[2] **Cody Coleman**, Deepak Narayanan, Daniel Kang, Tian Zhao, Jian Zhang, Luigi Nardi, Peter Bailis, Kunle Olukotun, Chris Ré, and Matei Zaharia. Dawnbench: An end-to-end deep learning benchmark and competition. In *ML System Workshops at NIPS*. https://dawn.cs.stanford.edu/benchmark/papers/nips17-dawnbench.pdf.

[3] **Cody A. Coleman**. Identifying and characterizing subpopulations in massive open online courses. Master's thesis, 77 Massachusetts Ave, Cambridge, MA 02139, 2015.

[4] **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.

[5] 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.

[6] 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.

[7] 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.

[8] 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.