KRISTIN STEPHENS-MARTINEZ

Duke University
Department of Computer Science
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EDUCATION

Doctor of Philosophy, Computer Science
University of California, Berkeley GPA 3.955 December 2017
Advisor: Armando Fox

Master of Science, Computer Science
University of California, Berkeley GPA 3.955 December 2013
Advisor: Vern Paxson

Bachelor of Science, Computer Science
University of Maryland, College Park GPA 4.0 May 2009
Summa Cum Laude

PROFESSIONAL APPOINTMENTS

Assistant Professor of the Practice (Duke University) Dec 2017 - Now

Co-Instructor
CS194-25 with Dawn Song (University of California, Berkeley) Fall 2012

Head Teaching Assistant
CS169 with Armando Fox (University of California, Berkeley) Fall 2016

Graduate Teaching Assistant
CS61A with Paul Hilfinger (University of California, Berkeley) Spring 2016
CS61A with John DeNero (University of California, Berkeley) Fall 2015
EE122 with Scott Shenker (University of California, Berkeley) Fall 2011
CMSC198K with Bobby Bhattacharjee & Samir Khuller (University of Maryland, College Park) Fall 2009

Undergraduate Teaching Assistant
CMSC131 with Jan Plane (University of Maryland, College Park) Spring 2008
CMSC106 with Jan Plane (University of Maryland, College Park) Spring 2007

Graduate Student Researcher
Wrong answers and Hints with Armando Fox (University of California, Berkeley) May - Aug 2016, Jan - May 2017
KnowMap with Dawn Song (University of California, Berkeley) May - Dec 2012
Work with Vern Paxson (University of California, Berkeley)
- *BGP Parser* Jan - Aug 2011
- *HTTP Request Causation* Jan - May 2012

Hoodnets with Bobby Bhattacharjee (University of Maryland, College Park) Aug 2009 - May 2010

Undergraduate Student Researcher
FindBugs with Bill Pugh (University of Maryland, College Park) May - Aug 2006, Jan - May 2007

Software Engineer Intern

Coursera, *Quiz Statistics Visualization* (Mountain View, CA)	May - Aug 2014
Stanford edX, *Instructor Dashboard* (Stanford, CA)	May - Aug 2013
Google, *Google Doc Team* (New York, NY)	Jun - Aug 2010
Google, *Internationalization Team* (Mountain View, CA)	Jun - Aug 2009
Microsoft, *Excel Developer Team* (Redmond, WA)	May - Aug 2008

PUBLICATIONS

Books and Manuscripts

Kristin Stephens-Martinez. 2017. *Serving CS Formative Feedback on Assessments Using Simple and Practical Teacher-Bootstrapped Error Models.* Ph.D. Thesis. University of California, Berkeley.

Conferences

Kristin Stephens-Martinez and Armando Fox. 2018. *Giving Hints is Complicated: Understanding the Challenges of an Automated Hint System Based on Frequent Wrong Answers.* ACM Conference on Innovation and Technology in Computer Science Education. (pp. 45-50) ITiCSE '18.

Kristin Stephens-Martinez, An Ju, Krishna Parashar, Regina Ongowarsito, Nikunj Jain, Sreesha Venkat, Armando Fox. 2017. *Taking Advantage of Scale by Analyzing Frequent Constructed-Response, Code Tracing Wrong Answers.* ACM International Computing Education Research. (pp. 56-64) ICER '17.

Kristin Stephens-Martinez, Marti A. Hearst, and Armando Fox. 2014. *Monitoring MOOCs: Which information sources do instructors value?.* ACM Learning At Scale. (pp. 79-88) ACM L@S '14.

Posters

Kristin Stephens-Martinez, An Ju, Colin Schoen, John DeNero, Armando Fox. 2016. *Identifying Student Misunderstandings using Constructed Responses.* Extended Abstract at ACM Learning At Scale. (pp. 153-156) L@S '16.

Kristin Stephens, Shaddi Hasan, and Yahel Ben-David. 2012. *MultiWAN: WAN Aggregation for Developing Regions.* ACM Symposium on Computing for Development. DEV '12.

Brian Cole, Dan Hakim, Dave Hovemeyer, Reuven Lazarus, William Pugh, and **Kristin Stephens**. 2006. *Improving your software using static analysis to find bugs.* In Companion to the 21st ACM SIGPLAN Symposium on Object-Oriented Programming Systems, Languages, and Applications. OOPSLA '06.

Birds of a Feather

Kristin Stephens-Martinez and Brian Railing. 2019. *How can we make office hours better?* SIGCSE Technical Symposium on Computer Science Education. Feb 28, 2019. SIGCSE '19.

Unrefereed Reports

Kristin Stephens-Martinez. 2013. *Towards Sound HTTP Request Causation Inference.* Master's Report. University of California, Berkeley.

Artifacts

Kristin Stephens-Martinez. 2019-2020. *The CS-Ed Podcast.* Duke University. A podcast where I talk about teaching computer science with computer science educators. 6 episode series of 30-45 minute episodes. 2 released in 2019 and 4 to be released in 2020. https://sites.duke.edu/csedpodcast/

Kristin Stephens-Martinez. 2019. *Kristin Stephens-Martinez Blog.* 8 blog posts with topics on conference reflection, grant writing reflection, how I stay organized, and teaching. https://ksm-cs.blogspot.com/

Kristin Stephens-Martinez. 2018. *Learning Innovation Blog: "Planning a Course Calendar".* https://learninginnovation.duke.edu/blog/2018/08/planning-a-course-calendar/

GRANTS

"CUE: Collaborative Research: Effective Peer Teaching Across Computing Pathways," National Science Foundation: Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE: CUE), $300,000, Submitted May 2019 (with Sarah Heckman, Lina Battestilli, Anna Howard, Kristy Boyer, Maya Israel, Ketan Mayer-Patel, David Gotz, and Karen Murphy). **Stephens-Martinez part $66,000**.

"The CS-Ed Podcast," SIGCSE Special Projects Grants, $5,000, Submitted December 2018. (acceptance rate 15%)

TEACHING

Duke University

Date		Number	Title	Enrolled	Rating (5.0)	TAs/ UTAs
2019	Fall	Compsci 249	Compsci Ed Research (Co-taught with Susan Rodger and Robert Duvall)	10		0
2019	Fall	Compsci 116	Foundations of Data Science	32		1/3
2019	Fall	Compsci 101	Introduction to Computer Science	254		2/30
2019	Spring	Compsci 101 Sec1	Introduction to Computer Science	130	3.80	2/28
	Spring	Compsci 101 Sec2	Introduction to Computer Science	94	3.69	-
2018	Fall	Compsci 101 Sec1	Introduction to Computer Science	182	3.31	2/34
	Fall	Compsci 101 Sec2	Introduction to Computer Science	109	3.76	-
2018	Spring	Compsci 101 Sec2	Introduction to Computer Science (Co-taught with Owen Astrachan (Sec 1))	104	3.28	2/29

University of California, Berkeley (Co-Instructor)

Date		Number	Title	Enrolled	Rating (5.0)	UTAs
2012	Fall	CS194-25	Special Topics: Build Your Next Gen Education Technology (Co-taught with Dawn Song)	13	5.0	0

University of California, Berkeley (Graduate Teaching Assistant)

Date		Number	Title	Rating (5.0)	UTAs
2016	Fall	CS169	Software Engineering		5
	Spring	CS61A	The Structure and Interpretation of Computer Programs	4.9	
2015	Fall	CS61A	The Structure and Interpretation of Computer Programs	4.5	
2011	Fall	EE122	Introduction to Communication Networks	4.5	

University of Maryland, College Park (Graduate Teaching Assistant)

Date		Number	Title
2009	Fall	CMSC198K	The Science Behind Computing

University of Maryland, College Park (Undergraduate Teaching Assistant)

Date		Number	Title
2008	Spring	CMSC131	Object Oriented Programming I
2007	Fall	CMSC106	Intro to C Programming

Course and Curriculum Development

Robert Duvall, Susan Rodger, and **Kristin Stephens-Martinez** (alphabetical order). *Curriculum for Undergraduate Teaching Assistant Training.* 2019. Compsci249. Duke University.

Ji Yeon Kim, Yesenia Velasco, and **Kristin Stephens-Martinez**. *Auto-grader Unittests for Compsci101 Assignments*. 2018. Compsci101. Duke University.

Kristin Stephens-Martinez. *Curriculum for "Build Your Next Gen Education Technology.* 2012. CS194-25. University of California, Berkeley.

STUDENTS

Duke University

Master's

- Ji Yeon Kim - "Student Paths in CS1: Case Studies of Initial Poor Performers" Aug 2018 - May 2019

Undergrad

- Jaylyn Barbee, "Breadcrumbs: Analyzing Classroom Data" Summer 2019
- Lucian Li, "Breadcrumbs: Analyzing Classroom Data" Summer 2019
- Man-Lin Hsiao, "Breadcrumbs: Analyzing Classroom Data" Summer 2018
- Liam Pulsifer, "Breadcrumbs: Analyzing Classroom Data" Summer 2018

PhD, Research Initial Project Committee Member

- Zhengjie Miao (advisors: Jun Yang and Sudeepa Roy) Spring 2018

Master's Committee Member

- Yuxi Yang (advisor: Mary Cummings) Fall 2019

University of California, Berkeley (All Undergrad)

- Anwar Baroudi, "Do students like and remember hints?" Spring 2018
- Maia Rosengarten, "Do students like and remember hints?" Spring 2018
- Nikunj Jain Fall 2016, Spring 2017, Summer 2017
  - "Quantitative Analysis of Code-Tracing Wrong Answers"
  - "Delivering Hints to Students Based on Wrong Answers"
- Sreesha Venkat Fall 2016, Spring 2017
  - "Qualitative Analysis of Code-Tracing Wrong Answers"
  - "Delivering Hints to Students Based on Wrong Answers"
- Regina Ongowarsito Summer 2016, Fall 2016, Spring 2017
  - "Qualitative Analysis of Code-Tracing Wrong Answers"
  - "Delivering Hints to Students Based on Wrong Answers"
- Krishna Parashar Summer 2016, Fall 2016, Spring 2017
  - "Qualitative Analysis of Code-Tracing Wrong Answers"
  - "Delivering Hints to Students Based on Wrong Answers"
- Steven Chi, "Predicting Struggling Students from Student Answers" Spring 2016, Summer 2016
- Spenser Chiang, "OK.py Feature: Hints" Spring 2016
- Hayden Sheung, "OK.py Feature: Hints" Spring 2016
- Kelly Liu, "Qualitative Analysis of Code-Tracing Wrong Answers" Spring 2016
- Hannah Huang, "Qualitative Analysis of Code-Tracing Wrong Answers" Fall 2015, Spring 2016
- Michelle Tian, "Qualitative Analysis of Code-Tracing Wrong Answers" Fall 2015

ACADEMIC SERVICE

Duke University

- Computer Science Dept. Faculty Search Committee PoP — Aug 2019 - May 2020
- Computer Science Dept. Communications Committee — Dec 2018 - Present
- Computer Science Advisor — Aug 2018 - Present
  - 2019-2020 year: 31 students
  - 2018-2019 year: 27 students
- College Advisor — Aug 2018 - Present
  - 2019-2020 year: 6 students
  - 2018-2019 year: 3 students

Conference Reviewer

SIGCSE Technical Symposium — 2018, 2019
L@S — 2017

Grant Proposal Reviewer

National Science Foundation Panelist for CSforAll (11 Proposals) — June 2018

University of California, Berkeley

- EECS Peers
  - Member — Aug 2015 - May 2017
  - CS-Coordinator and Founder — Aug 2013 - May 2015
- Graduate and Undergraduate Mentoring — Jan 2010 - May 2017
  - 10 graduate and 13 undergraduate students
- Teaching Conference for First-Time GSIs, Session Facilitator — Jan 13, 2017
- Admissions Committee, Education Area Reader — 2016, 2017
- Admissions Committee, Diversity Reader — 2013, 2014
- Women In Computer Science and Electrical engineering (WICSE), Co-President — Aug 2012 - May 2013

University of Maryland, College Park

- Association for Women in Computing (AWC)
  - Co-Chair — Aug 2008 - May 2009
  - Treasurer — Aug 2007 - May 2008
- CS Ambassador — Aug 2008 - May 2009
- PRIME Scholar — Aug 2006 - Dec 2007

TALKS

- "It's a Marathon, Not a Sprint: Balancing Work and Life in Grad School and Beyond," with James Mickens by CRA-WP, Grace Hopper Celebration, Orlando, FL, Oct 2, 2019.
- "Giving Hints is Complicated: Understanding the Challenges of an Automated Hint System Based on Frequent Wrong Answers," Project Search Pre-Orientation undergraduate program, Duke University, Durham, NC, Aug 7, 2019.
- "How Can Data from Large Classrooms Improve Learning?," Behavioral Research Informing Teaching Excellence (BRITE), Duke University, Durham, NC, Dec 4, 2018.
- "Teaching as a Career," Compsci 701: Introduction to Graduate Study, Duke University, Durham, NC, Nov 9, 2018.
- "Giving Hints is Complicated: Understanding the Challenges of an Automated Hint System Based on Frequent Wrong Answers," Project Search Pre-Orientation undergraduate program, Duke University, Durham, NC, Aug 13, 2018.

- "Giving Hints is Complicated: Understanding the Challenges of an Automated Hint System Based on Frequent Wrong Answers," ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE), Larnaca, Cyprus, Jul 2, 2018.
- "Taking Advantage of Scale by Analyzing Frequent Constructed-Response, Code Tracing Wrong Answers," ACM International Computing Education Research (ICER), Tacoma, WA, USA, Aug 18, 2017.
- "Monitoring MOOCs: Which information sources do instructors value?" ACM Learning At Scale (L@S), Atlanta, GA, USA, Mar 4, 2014.

PANELS

- "David M. Rubenstein Scholars Spotlight Series," Duke University, July 3, 2019.

MEMBERSHIPS

Special Interest Group on Computer Science Education (SIGCSE) 2018 - Present
Association for Computing Machinery (ACM) 2008 - Present

HONORS AND AWARDS

University of California, Berkeley

Outstanding Graduate Student Instructor 2012-2013
National Science Foundation Fellowship 2010
University of California, Berkeley Chancellor's Fellowship 2010

University of Maryland, College Park

Outstanding Undergraduate for The College of Computational, Mathematical, and Physical Sciences 2009
CS Teaching Excellence Award for an Undergraduate Teaching Assistant 2009