### KRISTIN STEPHENS-MARTINEZ

Duke University
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Department of Computer Science
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Durham, NC 27708-0129

**EDUCATION** 

Doctor of Philosophy, Computer Science (Advisor: Armando Fox)

University of California, Berkeley December 2017

Thesis: Serving CS Formative Feedback on Assessments Using Simple and Practical Teacher-Bootstrapped

 $Error\ Models$ 

Master of Science, Computer Science (Advisor: Vern Paxson)

University of California, Berkeley December 2013

Report: Towards Sound HTTP Request Causation Inference

Bachelor of Science, Computer Science

University of Maryland, College Park

May 2009

Summa Cum Laude

PROFESSIONAL APPOINTMENTS

Associate Professor of the Practice (Duke University)

Jan 2024 - Now

Assistant Professor of the Practice (Duke University)

Dec 2017 - Dec 2023

Associate Director of Undergraduate Studies (Duke University)

Jul 2021 - Jun 2022

Co-Instructor

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

Head/Graduate/Undergraduate Teaching Assistant

See Teaching section for details

Graduate Student Researcher

Wrong answers and Hints with Armando Fox May - Aug 2016, Jan - May 2017

(University of California, Berkeley)

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 |
| Oil Price Information Services (OPIS), Developer Team (Rockville, MD) | May - Aug 2008 |

#### HONORS AND AWARDS

## University of California, Berkeley

| Outstanding Graduate Student Instructor                    | 2012-2013 |
|--|-----------|
| National Science Foundation Graduate Research 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 |

### **PUBLICATIONS**

## Conferences

Shao-Heng Ko, **Kristin Stephens-Martinez**, Matthew Zahn, Yesenia Velasco, Lina Battestilli, and Sarah Heckman. 2025. *Student Perceptions of the Help Resource Landscape*. In Proceedings of the 56nd ACM Technical Symposium on Computer Science Education. SIGCSE '25.

Shao-Heng Ko and **Kristin Stephens-Martinez**. 2024. The Trees in the Forest: Characterizing Computing Students' Individual Help-Seeking Approaches. ACM International Computing Education Research. ICER '24. (20.1% acceptance)

Shao-Heng Ko and **Kristin Stephens-Martinez**. 2023. What Drives Students to Office Hours: Individual Differences and Similarities. In Proceedings of the 54nd ACM Technical Symposium on Computer Science Education. SIGCSE '23. (35% acceptance)

Anshul Shah, Jonathan Liu, **Kristin Stephens-Martinez**, and Susan H. Rodger. 2021. *The CS1 Reviewer App: Choose Your Own Adventure or Choose for Me!*. In Proceedings of the 26th ACM Conference on Innovation and Technology in Computer Science Education. (pp 331-337) ITiCSE '21. (30.5% acceptance)

Kristin Stephens-Martinez. 2021. A Study of the Relationship Between a CS1 Student's Gender and Performance Versus Gauging Understanding and Study Tactics. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education. (pp 679-685) SIGCSE '21. (31% acceptance)

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

Salma El Otmani, Janet Jian, Shao-Heng Ko, and Kristin Stephens-Martinez. 2024. The Relationships Between Modality, Peer Instruction Discussion, and Class Sentiment in Hybrid Courses. Extended Abstract at ACM SIGCSE Technical Symposium on Computer Science Education. SIGCSE '24. (60% acceptance)

Sadhana Suryadevara and Kristin Stephens-Martinez. 2022. UPIC a Problem-Solving Framework: Understand, Plan, Implement, and Correctness/Debugging. Extended Abstract at ACM Conference on International Computing Education Research. ICER '22.

Amogh Mannekote, Mehmet Celepkolu, Aisha Chung Galdo, Kristy Elizabeth Boyer, Maya Israel, Sarah Heckman, **Kristin Stephens-Martinez**. 2022. *Don't Just Paste Your Stacktrace: Shaping Discussion Forums in Introductory CS Courses*. Extended Abstract at ACM SIGCSE Technical Symposium on Computer Science Education. SIGCSE '22. (64% acceptance)

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.

### Articles

Kristin Stephens-Martinez. 2021. The CS-Ed Podcast Season 2. ACM SIGCSE Bulletin, Vol. 53, No. 1, page 6, January 2021.

Kristin Stephens-Martinez. 2020. The CS-Ed Podcast. ACM SIGCSE Bulletin, Vol. 52, No. 1, page 12, January 2020.

#### Panels

Brett Wortzman, Kristin Stephens-Martinez, Mia Minnes, Oluwakemi Ola, Adam Blank. 2023. Who's Cheating Whom? Changing the Narrative Around Academic Misconduct. SIGCSE Technical Symposium on Computer Science Education. SIGCSE '23. (39% acceptance)

Dan Garcia, Jim Huggins, Lauren Bricker, Adam Gaweda, David J. Malan, Joël Porquet-Lupine, **Kristin Stephens-Martinez**. 2023. *It Seemed Like a Good Idea at the Time ("Let Me Help You with That" edition)*. SIGCSE Technical Symposium on Computer Science Education. SIGCSE '23. (39% acceptance)

Dan Garcia, Zelda Allison, Abigail Joseph, David Malan, **Kristin Stephens-Martinez**. 2022. *Technology We Can't Live Without! (COVID-19 edition)*. SIGCSE Technical Symposium on Computer Science Education. SIGCSE '22. (58% acceptance)

Kristin Stephens-Martinez, Manuel A. Pérez-Quiñones, Nicki Washington, and Leigh Ann DeLyser. 2021. Where Should We Go From Here? Eliminating Inequities In CS Education, Featuring Guests From The CS-Ed Podcast. SIGCSE Technical Symposium on Computer Science Education. SIGCSE '21. (56% acceptance)

# Demos

Yihao Hu, Zhengjie Miao, Zhiming Leong, Haechan Lim, Zachary Zheng, Sudeepa Roy, **Kristin Stephens-Martinez**, and Jun Yang. 2022. *I-Rex: An Interactive Relational Query Debugger for SQL*. Abstract at ACM SIGCSE Technical Symposium on Computer Science Education. SIGCSE '22. (48% acceptance)

### Birds of a Feathers

Kevin Lin, Brian Railing, and **Kristin Stephens-Martinez**. 2021. How can we make office hours better?. SIGCSE Technical Symposium on Computer Science Education. SIGCSE '21. (88% acceptance)

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.

# Artifacts

Kristin Stephens-Martinez. 2023-2024. The CS-Ed Podcast. Season 4. Duke University. A podcast where I talk about teaching computer science with computer science educators. Episodes are 30-45 minute long. 728 listens for 5 episode as of 11/1/24 from Spotify, Apple Podcasts, and YouTube Podcasts. https://csedpodcast.org/

Kristin Stephens-Martinez. 2022-2023. The CS-Ed Podcast. Season 3. Duke University. A podcast where I talk about teaching computer science with computer science educators. Theme: "What's Next?" Episodes are 30-45 minute long. 2,002 listens across 12 episodes as of 12/1/24 from Spotify, Apple Podcasts, and YouTube Podcasts. https://csedpodcast.org/

Kristin Stephens-Martinez. 2021. The CS-Ed Podcast. Season 2. Duke University. A podcast where I talk about teaching computer science with computer science educators. Theme: "Where should we go from here?" 6 episode series of 30-45 minute episodes. 1,710 listens across 6 episodes as of 12/1/24 from Spotify, Apple Podcasts, and YouTube Podcasts. https://csedpodcast.org/

**Kristin Stephens-Martinez**. 2019-2020. *The CS-Ed Podcast*. Season 1. Duke University. A podcast where I talk about teaching computer science with computer science educators. 6 episode series of 30-45 minute episodes. 2,753 listens as of 12/1/24 from Spotify, Apple Podcasts, and YouTube Podcasts. https://csedpodcast.org/

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

 $\underline{Blog}$  https://ksm-cs.blogspot.com/  $\mathrm{OR}$  https://ksm-csed.medium.com/

| Year Posted | # Posts | Total Views* | Topics   |
|-------------|---------|--------------|--|
| 2019        | 9       | 6,977        | Conference reflection, grant writing reflection, how I stay  |
|             |         |              | organized, and teaching                                      |
| 2020        | 8       | 3,402        | My webinar "How to Create and Use Formative Assess-          |
|             |         |              | ments at Scale", conference reflection, how I organize the   |
|             |         |              | teaching staff of my 200+ student class, getting organized   |
| 2021        | 8       | 1,074        | Semester theme, conference reflections, teaching reflec-     |
|             |         |              | tions, teaching techniques, ITiCSE paper, other podcasts     |
| 2022        | 9       | 1,739        | Grad school application advice, teaching reflection, reflec- |
|             |         |              | tions as conference's hybrid chair, teaching practices       |
| 2023        | 7       | 1,481        | Teaching practices, research lab practices, reflections as a |
|             |         |              | conference's hybrid chair, time management                   |
| 2024        | 4       | 485          | Teaching practices, productivity practices                   |

<sup>\*</sup> For all posts from that year for all time as of 12/02/24.

## **TEACHING**

| Duke | Universit | y                           |                                  |          |          |
|------|-----------|-----------------------------|----------------------------------|----------|----------|
| Date | ;         | Number                      | Title                            | Enrolled | TAs/UTAs |
| 2024 | Fall      | Compsci 216                 | Everything Data                  | 88       | 2/12     |
| 2024 | Spring    | Compsci 216                 | Everything Data                  | 160      | 2/13     |
| 2023 | Fall      | Compsci 216                 | Everything Data                  | 82       | 2/10     |
| 2023 | Spring    | Compsci 216                 | Everything Data                  | 234      | 3/21     |
| 2022 | Fall      | Compsci 216                 | Everything Data                  | 208      | 2/10     |
| 2022 | Fall      | Compsci 290                 | Computing Education Research     | 15       | 0        |
| 2022 | Spring    | Compsci 216                 | Everything Data                  | 208      | 2.5/10   |
| 2022 | Spring    | Compsci 290                 | Computing Education Research     | 14       | 0        |
| 2021 | Fall      | Compsci 116                 | Foundations of Data Science      | 38       | 1/2      |
| 2021 | Fall      | Compsci 216                 | Everything Data                  | 198      | 2/10     |
| 2021 | Spring    | Compsci 201                 | Data Structures and Algorithms   | 276      | 2/31     |
|      |           | (Co-taught with             | Brandon Fain)                    |          |          |
| 2021 | Spring    | Compsci 216                 | Everything Data                  | 217      | 2/9      |
|      |           | (Co-taught with             | Brandon Fain)                    |          |          |
| 2020 | Spring    | Compsci 249                 | Compsci Ed Research              | 10       | 0        |
|      |           | (Co-taught with             | Susan Rodger)                    |          |          |
| 2020 | Spring    | Compsci 101                 | Introduction to Computer Science | 170      | 2/20     |
| 2019 | Fall      | Compsci 249                 | Compsci Ed Research              | 10       | 0        |
|      |           | (Co-taught with             | Susan Rodger and Robert Duvall)  |          |          |
| 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      | 2/28     |
|      | Spring    | Compsci $101 \text{ Sec} 2$ | Introduction to Computer Science | 94       | -        |
| 2018 | Fall      | Compsci 101 Sec1            | Introduction to Computer Science | 182      | 2/34     |
|      | Fall      | Compsci $101 \text{ Sec} 2$ | Introduction to Computer Science | 109      | -        |
| 2018 | Spring    | Compsci 101 Sec2            | Introduction to Computer Science | 104      | 2/29     |
|      |           | (Co-taught with             | Owen Astrachan (Sec 1))          |          |          |

Notes:

Fall 2020: Parental leave

TA - Graduate Teaching Assistant, UTA - Undergraduate Teaching Assistant

## University of California, Berkeley (Co-Instructor)

|      |      | ,,                | ,,   |          |                 |
|------|------|-------------------|--|----------|-----------------|
| Date |      | $\mathbf{Number}$ | Title  | Enrolled | $\mathbf{UTAs}$ |
| 2012 | Fall | CS194-25          | Special Topics: Build Your Next Gen Education Technology | 13       | 0               |
|      |      | (Co-tau           | ght with Dawn Song)                                      |          |                 |

# University of California, Berkeley (Graduate Teaching Assistant)

| $\mathbf{Date}$ |        | $\mathbf{Number}$ | Title  |
|-----------------|--------|-------------------|--|
| 2016            | Fall   | CS169             | Software Engineering (Armando Fox, Head Grad TA of 5 Undergrad TAs)    |
|                 | Spring | CS61A             | The Structure and Interpretation of Computer Programs (Paul Hilfinger) |
| 2015            | Fall   | CS61A             | The Structure and Interpretation of Computer Programs (John DeNero)    |
| 2011            | Fall   | EE122             | Introduction to Communication Networks (Scott Shenker)                 |

# University of Maryland, College Park (Graduate Teaching Assistant)

| Date |      | Number   | Title  |
|------|------|----------|--|
| 2009 | Fall | CMSC198K | The Science Behind Computing (Bobby Bhattacharjee & Samir Khuller) |

# University of Maryland, College Park (Undergraduate Teaching Assistant)

| $\mathbf{Date}$ |        | $\mathbf{Number}$ | Title                                     |
|-----------------|--------|-------------------|---|
| 2008            | Spring | CMSC131           | Object Oriented Programming I (Jan Plane) |
| 2007            | Fall   | CMSC106           | Intro to C Programming (Jan Plane)        |

### 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.

#### GRANTS

"AI Learning Companion for Applied Machine Learning," Duke University, \$21,322, July 2024 - June 2025 (with Brandon Fain and Robert Duvall).

"Collaborative Research: Characterizing and empowering student success when traversing the academic help landscape," #2336805, National Science Foundation: Division of Undergraduate Education (DUE), \$700,000, May 2024 - April 2027 (with Yesenia Velasco, Sarah Heckman, and Lina Battestilli). **Stephens-Martinez part \$324,986**.

REU Supplement to "CUE: Collaborative Research: Effective Peer Teaching Across Computing Pathways," #1934965, National Science Foundation: Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE: CUE), \$5,000, Summer 2021.

REU Supplement to "CUE: Collaborative Research: Effective Peer Teaching Across Computing Pathways," #1934965, National Science Foundation: Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE: CUE), \$10,000, Summer 2020.

"III: Small:HNRQ: Helping Novices Learn and Debug Relational Queries," #2008107, National Science Foundation: IIS, \$500,000, October 2020 - September 2023 (with Jun Yang and Sudeepa Roy).

"CUE: Collaborative Research: Effective Peer Teaching Across Computing Pathways," #1934965, National Science Foundation: Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE: CUE), \$300,000, January 2020 - June 2023 (with Sarah Heckman, Lina Battestilli, Anna Howard, Kristy Boyer, Maya Israel, Ketan Mayer-Patel, David Gotz, and Karen Murphy). **Stephens-Martinez part \$76,055**.

"The CS-Ed Podcast," SIGCSE Special Projects Grants, \$5,000, Year of 2019. (acceptance rate 15%)

## STUDENTS

### Duke University

PhD's

1. Shao-Heng Ko Aug 2022 - Current

Master's

 $1.\ \ Ji\ Yeon\ Kim\ -\ "Student\ Paths\ in\ CS1:\ Case\ Studies\ of\ Initial\ Poor\ Performers"\ Aug\ 2018\ -\ May\ 2019$ 

Post Bachelor's
1. Jonathan Liu, "CS101 Reviewer App"

Fall 2020, Spring 2021

Undergrad

- 1. Nikita Agarwal (Univ. of Wisconsin-Madison)
  - "Open-Ended Autograders for Introuctory Python" (DREU)

Summer 2024

2. Kevin Alvarenga, "Open-Ended Autograders for an Introductory Python" (DREU) Summer 2024

| 3.                                     | Arunima Suri (Univ. of IL Urbana-Champaign)  • "Open-Ended Autograders for Introuctory Python" (DREU)  | Summer 2024  |
|--|--|--|
| 4.                                     | Divya Nataraj  • "Exploring How Diversity and Other Factors Relate to Student Performa Persistence in CS" (Independent Study, Thesis, Graduate with Highest II.  • "Diversity in Undergraduate Computing" (Independent Study, UR2PhD   | ance and Distinction) Spring 2024  |
| 5.                                     | Janet Jiang  | Spring 2024<br>Program) Fall 2023<br>Summer 2023   |
| 7.                                     | Jerry He, "Effectiveness of Hybrid Classes" (CS+ Program) Salma El Otmani, "Effectiveness of Hybrid Classes" (CS+ Program) Rhea Tejwani, "Understanding the Efficacy of Office Hours in CS1"  • (Thesis, Graduate with Distinction)  | Summer 2023<br>Summer 2023<br>Spring 2023  |
| 9.                                     | Sara Mehta, "Factors that Influence Attitudes Toward Group Work in CS Cla  • (Independent Study, Thesis, Graduate with Distinction)  |  |
| 10.                                    | <ul> <li>Belle Xu</li> <li>"Understanding the Association between Student Behavior on Formative Assessments and Performance on Summative Assessments" (Independent Study, Thesis, Graduate with Distinction)</li> <li>"CS101 Reviewer App" (CS+ Program, Independent Study)</li> </ul>   | Fall 2022, Spring 2023<br>mmer 2021, Spring 2022   |
| 11.                                    | Bianca Saputra, "What CS1 Formative Assessments Tell Us"  • (Thesis, Graduate with Distinction)  | Fall 2021, Spring 2022   |
| 12.                                    | <ul> <li>Sona Suryadevara</li> <li>"Analyzing Office Hours Through the Lens of Gender and the<br/>Problem-Solving Process" (Thesis, Graduate with Distinction)</li> <li>"CS101 Reviewer App" (CS+ Program)</li> </ul>  | Fall 2021, Spring 2022<br>Summer 2021  |
| 14.                                    | Brian Janger, "CS101 Reviewer App" (CS+ Program)<br>Manith Luthria, "CS101 Reviewer App" (CS+ Program)<br>Eric Young   | Summer 2021<br>Summer 2021   |
| 17.<br>18.<br>19.<br>20.<br>21.<br>22. | <ul> <li>Duke Innovation &amp; Entrepreneurship Certificate Program</li> <li>"WWPD: What Will Python Do?" (CS+ Program)</li> <li>Andrew Elcock, "CS101 Reviewer App" (Independent Study)</li> <li>Anshul Shah, "CS101 Reviewer App" (Independent Study)</li> <li>Benjamin Stewart, "WWPD: What Will Python Do?" (CS+ Program)</li> <li>Frank Tang, "WWPD: What Will Python Do?" (CS+ Program)</li> <li>Jaylyn Barbee, "Breadcrumbs: Analyzing Classroom Data" (CS+ Program)</li> <li>Lucian Li, "Breadcrumbs: Analyzing Classroom Data"</li> <li>Liam Pulsifer, "Breadcrumbs: Analyzing Classroom Data"</li> </ul> | Summer 2021 Summer 2020 Spring 2021 , Fall 2020, Spring 2021 Summer 2020 Summer 2020 Summer 2019 Summer 2019 Summer 2018 Summer 2018 Summer 2018 |
| 1.                                     | Preliminary Exam Committee Member<br>Yihao Hu (advisor: Jun Yang)<br>Zhengjie Miao (advisor: Sudeepa Roy)  | Spring 2023<br>Spring 2020   |
| 1.                                     | Research Initial Project Committee Member<br>Yihao Hu (advisor: Jun Yang)<br>Zhengjie Miao (advisor: Sudeepa Roy)  | Spring 2021<br>Spring 2018   |
| 1.                                     | er's Committee Member Tiangang Chen (advisor: Jun Yang) Yuxi Yang (advisor: Mary Cummings)   | Spring 2020<br>Fall 2019   |

| <ul> <li>University of California, Berkeley (All Undergrad)</li> <li>1. Anwar Baroudi, "Do students like and remember hints?"</li> <li>2. Maia Rosengarten, "Do students like and remember hints?"</li> <li>3. Kavi Gupta, "Delivering Hints to Students Based on Wrong Answers"</li> <li>4. Nikunj Jain</li> <li>"Quantitative Analysis of Code-Tracing Wrong Answers"</li> </ul>   | Spring 2018<br>Spring 2018<br>Spring 2018<br>Fall 2016 - Summer 2017  |
|--|---|
| <ul> <li>"Delivering Hints to Students Based on Wrong Answers"</li> <li>5. Sreesha Venkat</li> <li>"Qualitative Analysis of Code-Tracing Wrong Answers"</li> </ul>   | Fall 2016, Spring 2017  |
| <ul> <li>"Delivering Hints to Students Based on Wrong Answers"</li> <li>Regina Ongowarsito</li> <li>"Qualitative Analysis of Code-Tracing Wrong Answers"</li> </ul>  | Summer 2016 - Spring 2017   |
| <ul> <li>"Delivering Hints to Students Based on Wrong Answers"</li> <li>7. Krishna Parashar</li> <li>"Qualitative Analysis of Code-Tracing Wrong Answers"</li> </ul>   | Summer 2016 - Spring 2017   |
| <ul> <li>"Delivering Hints to Students Based on Wrong Answers"</li> <li>8. Steven Chi, "Predicting Struggling Students from Student Answers"</li> <li>9. Spenser Chiang, "OK.py Feature: Hints"</li> <li>10. Hayden Sheung, "OK.py Feature: Hints"</li> <li>11. Kelly Liu, "Qualitative Analysis of Code-Tracing Wrong Answers"</li> <li>12. Hannah Huang, "Qualitative Analysis of Code-Tracing Wrong Answers"</li> <li>13. Michelle Tian, "Qualitative Analysis of Code-Tracing Wrong Answers"</li> </ul>  | Spring 2016, Summer 2016<br>Spring 2016<br>Spring 2016<br>Spring 2016<br>Fall 2015, Spring 2016<br>Fall 2015  |
| ACADEMIC SERVICE  Duke University  • Computer Science Advisor  - 2023-2024 year: 32 students  - 2022-2023 year: 19 students  - 2021-2022 year: 20? students  - 2020-2021 year: 38 students  - 2019-2020 year: 31 students  - 2018-2019 year: 27 students   | Aug 2018 - Now  |
| <ul> <li>College Advisor</li> <li>2024-2025 year: 6 students</li> <li>2023-2024 year: 6 students</li> <li>2022-2023 year: 6 students</li> <li>2021-2022 year: 7 students</li> <li>2020-2021 year: 7 students</li> <li>2019-2020 year: 6 students</li> <li>2018-2019 year: 3 students</li> </ul>  | Aug 2018 - Now  |
| <ul> <li>Duke Century Courses Committee</li> <li>Computer Science Dept. Chair of Undergraduate Affairs Committee</li> <li>Computer Science Dept. Teaching Excellence Committee</li> <li>Computer Science Dept. Assessment Liaison</li> <li>Computer Science Dept. Undergraduate Affairs Committee</li> <li>Computer Science Dept. Faculty Search Committee Lecturer</li> <li>Computer Science Dept. DUS Assistant Hiring Committee</li> <li>Computer Science Dept. Undergraduate Coordinator Hiring Committee</li> <li>Computer Science Dept. Space Committee</li> <li>Computer Science Dept. Faculty Search Committee PoP</li> <li>Computer Science Dept. Communications Committee</li> </ul> | Dec 2024 - Now Aug 2024 - Now Aug 2024 - Now Aug 2023 - Dec 2024 Aug 2022 - May 2024 Aug 2022 - Dec 2022 Jan 2022 - May 2022 Jan 2022 - May 2022 July 2020 - May 2021 Aug 2019 - May 2020 Dec 2018 - May 2020 |

#### Conference

SIGCSE Technical Symposium Hybrid Experience Chair

2022, 2023, 2024\*

- 2024\* Advisory role
- 2023 Attendees: 200 online, 1,354 in-person, 1,554 total
- 2022 Attendees: 632 online, 788 in-person, 1,544 total

SIGCSE Technical Symposium Reviewer 2019, 2020, 2021, 2022, 2024, 2025 ICER Code of Conduct/Ethics Facilitator 2021, 2022 ICER Reviewer 2021, 2024 Learning@Scale Reviewer 2017, 2020

### Grant Proposal Reviewer

National Science Foundation Panelist for CISE

2018, 2021

#### External

Online Social Gathering Coordinator for CS Teacher Group CRA-WP Table Mentor for Teaching Track Faculty Workshop April 2021 - Now

March 2021

# University of California, Berkeley

- EECS Peers
  - Member Aug 2015 - May 2017 CS-Coordinator and Founder Aug 2013 - May 2015
- Graduate and Undergraduate Mentoring
  - 10 graduate and 13 undergraduate students
- Teaching Conference for First-Time GSIs, Session Facilitator Jan 13, 2017
- Admissions Committee, Education Area Reader

2016, 2017

Jan 2010 - May 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**

- Jupyter Notebooks at NCShare, Online, Nov 14, 2023.
- Presented 2 peer instructions at "Spiffy Peer Instruction Questions." SIGCSE TS, Toronto, Canada, March 17, 2023.
- Jupyter Notebooks at NCShare, Online, Feb 21, 2023.
- "How I got to where I am today," guest speaker for Women in Tech seminar at Georgia Tech's OMSCS program, Online, Sep 19, 2022.
- "Women in Tech," guest speaker for Duke Association for Business Oriented Women (BOW), Online, Sep 9, 2022.
- "Using Data Science in CS Education & What is a Teaching Professor?," University of Illinois Computer Science, Online, March 29, 2022.
- "Teaching Data Science in a Flipped Classroom by Using Data Science," Berkeley EECS, Online, Mar 9, 2022.
- "A Scaled Class is a Rich Class: How to approach large class data sets to drive class improvements," CS Colloquium Series, Northwestern McCormick School of Engineering, Online, May 26, 2021.

- "A Study of the Relationship Between a CS1 Student's Gender and Performance Versus Gauging Understanding and Study Tactics," ACM Technical Symposium on Computer Science Education (SIGCSE), Online, Mar 18, 2021.
- "Learning at Scale with Kristin Stephens-Martinez," #CSK8 Podcast with Jared O'Leary, Internet, Sept 28, 2020, https://jaredoleary.com/csk8feed/51
- "How to Create and Use Formative Assessments at Scale," Codio Webinar, Internet, Jul 14, 2020. https://www.codio.com/webinar-how-to-create-and-use-formative-assessments-at-scale
- "Insights from Having Students Predict their Exam Grades," Behavioral Research Informing Teaching Excellence (BRITE), Duke University, Durham, NC, Mar 4, 2020.
- "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**

- "Who's Cheating Whom? Changing the Narrative Around Academic Misconduct." (Moderator) SIGCSE TS, Toronto, Canada, March, 17, 2023.
- "It Seemed Like a Good Idea at the Time ("Let Me Help You with That" edition)." SIGCSE TS, Toronto, Canada, March, 16, 2023.
- "Technology We Can't Live Without! (COVID-19 edition)." SIGCSE TS, Providence, RI, March 4, 2022.
- "Where Should We Go From Here? Eliminating Inequities In CS Education, Featuring Guests From The CS-Ed Podcast." (Moderator) SIGCSE TS, Online, March 16, 2021.
- "CS Instruction Post-Quarantine," Emerging Trends in Computer Science, Online, June 28, 2021.
- "David M. Rubenstein Scholars Spotlight Series," Duke University, July 3, 2019.

#### ADDITIONAL BROADENING PARTICIPATION IN COMPUTING

- Faculty Lunches (flunch) with students
  - -2024:1
  - -2023:3
  - -2022:4
  - 2021: 1 (Covid-19)
  - 2020: 4 (Covid-19, parental leave)
  - -2019:7
  - -2018:8
- Events Attended
  - Grace Hopper  $2009,\,2012,\,2018,\,2019,\,2020,\,2021$
  - Duke CS Discussion Panel on "Picture a Scientist" Movie November 2020
- Tapia • Mentor female Ph.D. student from University of Florida
- Undergraduate Teaching Assistant (UTA) Diversity Initiative
- Computer Science Education Research Reading Group

2014

2020-2021

Fall 2020

Summer 2020

### **MEMBERSHIPS**

Special Interest Group on Computer Science Education (SIGCSE) Association for Computing Machinery (ACM)

2018 - Now

2008 - Now