

June 7, 2024

## KRISTIN STEPHENS-MARTINEZ

Duke University  
Department of Computer Science  
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### 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, <i>Quiz Statistics Visualization</i> (Mountain View, CA)           | May - Aug 2014 |
| Stanford edX, <i>Instructor Dashboard</i> (Stanford, CA)                     | May - Aug 2013 |
| Google, <i>Google Doc Team</i> (New York, NY)                                | Jun - Aug 2010 |
| Google, <i>Internationalization Team</i> (Mountain View, CA)                 | Jun - Aug 2009 |
| Microsoft, <i>Excel Developer Team</i> (Redmond, WA)                         | May - Aug 2008 |
| Oil Price Information Services (OPIS), <i>Developer Team</i> (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 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: Un-*

*derstand, 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-Quinones, 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. 393 listens for 3 episode as of 06/1/24 from Spotify, Apple Podcasts, and Google 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. 1,907 listens across 12 episodes as of 06/1/24 from Spotify, Apple Podcasts, and Google 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. 1,616 listens across 6 episodes as of 06/1/24 from Spotify, Apple Podcasts, and Google 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. 2,604 listens as of 06/1/24 from Spotify, Apple Podcasts, and Google 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/>

***Blog***

<https://ksm-cs.blogspot.com/> OR <https://ksm-csed.medium.com/>

| Year Posted | # Posts | Total Views* | Topics  |
|-------------|---------|--------------|---|
| 2019        | 9       | 6,390        | Conference reflection, grant writing reflection, how I stay organized, and teaching   |
| 2020        | 8       | 3,104        | My webinar “How to Create and Use Formative Assessments at Scale”, conference reflection, how I organize the teaching staff of my 200+ student class, getting organized |
| 2021        | 8       | 1,037        | Semester theme, conference reflections, teaching reflections, teaching techniques, ITiCSE paper, other podcasts   |
| 2022        | 9       | 1,469        | Grad school application advice, teaching reflection, reflections as conference’s hybrid chair, teaching practices   |
| 2023        | 7       | 791          | Teaching practices, research lab practices, reflections as a conference’s hybrid chair, time management   |
| 2024        | 2       | 143          | Teaching practices  |

\* For all posts from that year for all time as of 06/01/24.

**TEACHING*****Duke University***

| <b>Date</b> |        | <b>Number</b>                                   | <b>Title</b>                     | <b>Enrolled</b> | <b>TAs/UTAs</b> |
|-------------|--------|---|----------------------------------|-----------------|-----------------|
| 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 Sec2                                | Introduction to Computer Science | 94              | -               |
| 2018        | Fall   | CompSci 101 Sec1                                | Introduction to Computer Science | 182             | 2/34            |
|             | Fall   | CompSci 101 Sec2                                | 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)***

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

***University of California, Berkeley (Graduate Teaching Assistant)***

| <b>Date</b> |        | <b>Number</b> | <b>Title</b>   |
|-------------|--------|---------------|--|
| 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)***

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

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

| <b>Date</b> |        | <b>Number</b> | <b>Title</b>                              |
|-------------|--------|---------------|---|
| 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**

“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 Introductory 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 Introductory Python” (DREU) Summer 2024

4. Divya Nataraj
    - “Exploring How Diversity and Other Factors Relate to Student Performance and Persistence in CS” (Independent Study, Thesis, Graduate with Highest Distinction) Spring 2024
    - “Diversity in Undergraduate Computing” (Independent Study, UR2PhD Program) Fall 2023
  5. Janet Jiang
    - “Peer Instruction in Hybrid Courses” (Independent Study) Spring 2024
    - “Diversity in Undergraduate Computing” (Independent Study, UR2PhD Program) Fall 2023
    - “Effectiveness of Hybrid Classes” (CS+ Program) Summer 2023
  6. Jerry He, “Effectiveness of Hybrid Classes” (CS+ Program) Summer 2023
  7. Salma El Otmami, “Effectiveness of Hybrid Classes” (CS+ Program) Summer 2023
  8. Rhea Tejwani, “Understanding the Efficacy of Office Hours in CS1”
    - (Thesis, Graduate with Distinction) Spring 2023
  9. Sara Mehta, “Factors that Influence Attitudes Toward Group Work in CS Classrooms”
    - (Independent Study, Thesis, Graduate with Distinction) Fall 2022, Spring 2023
  10. Belle Xu
    - “Understanding the Association between Student Behavior on Formative Assessments and Performance on Summative Assessments” (Independent Study, Thesis, Graduate with Distinction) Fall 2022, Spring 2023
    - “CS101 Reviewer App” (CS+ Program, Independent Study) Summer 2021, Spring 2022
  11. Bianca Saputra, “What CS1 Formative Assessments Tell Us”
    - (Thesis, Graduate with Distinction) Fall 2021, Spring 2022
  12. Sona Suryadevara
    - “Analyzing Office Hours Through the Lens of Gender and the Problem-Solving Process” (Thesis, Graduate with Distinction) Fall 2021, Spring 2022
    - “CS101 Reviewer App” (CS+ Program) Summer 2021
  13. Brian Janger, “CS101 Reviewer App” (CS+ Program) Summer 2021
  14. Manith Luthria, “CS101 Reviewer App” (CS+ Program) Summer 2021
  15. Eric Young
    - Duke Innovation & Entrepreneurship Certificate Program Summer 2021
    - “WWPD: What Will Python Do?” (CS+ Program) Summer 2020
  16. Andrew Elcock, “CS101 Reviewer App” (Independent Study) Spring 2021
  17. Anshul Shah, “CS101 Reviewer App” (Independent Study) Spring 2020, Fall 2020, Spring 2021
  18. Benjamin Stewart, “WWPD: What Will Python Do?” (CS+ Program) Summer 2020
  19. Frank Tang, “WWPD: What Will Python Do?” (CS+ Program) Summer 2020
  20. Jaylyn Barbee, “Breadcrumbs: Analyzing Classroom Data” (CS+ Program) Summer 2019
  21. Lucian Li, “Breadcrumbs: Analyzing Classroom Data” (CS+ Program) Summer 2019
  22. Man-Lin Hsiao, “Breadcrumbs: Analyzing Classroom Data” Summer 2018
  23. Liam Pulsifer, “Breadcrumbs: Analyzing Classroom Data” Summer 2018
- PhD, Preliminary Exam Committee Member*
1. Alex Hicks (Virginia Tech, advisors: Cliff Shaffer and Stephen Edwards) Spring 2024
  2. Yihao Hu (advisor: Jun Yang) Spring 2023
  3. Zhengjie Miao (advisor: Sudeepa Roy) Spring 2020
- PhD, Research Initial Project Committee Member*
1. Yihao Hu (advisor: Jun Yang) Spring 2021
  2. Zhengjie Miao (advisor: Sudeepa Roy) Spring 2018
- Master’s Committee Member*
1. Tiangang Chen (advisor: Jun Yang) Spring 2020
  2. Yuxi Yang (advisor: Mary Cummings) Fall 2019
- University of California, Berkeley (All Undergrad)**
1. Anwar Baroudi, “Do students like and remember hints?” Spring 2018
  2. Maia Rosengarten, “Do students like and remember hints?” Spring 2018

3. Kavi Gupta, “Delivering Hints to Students Based on Wrong Answers”

Spring 2018

4. Nikunj Jain

Fall 2016 - Summer 2017

- “Quantitative Analysis of Code-Tracing Wrong Answers”
- “Delivering Hints to Students Based on Wrong Answers”

5. Sreesha Venkat

Fall 2016, Spring 2017

- “Qualitative Analysis of Code-Tracing Wrong Answers”
- “Delivering Hints to Students Based on Wrong Answers”



|   |                           |
|---|---------------------------|
| 6. Regina Ongowarsito   | Summer 2016 - Spring 2017 |
| • “Qualitative Analysis of Code-Tracing Wrong Answers”                  |                           |
| • “Delivering Hints to Students Based on Wrong Answers”                 |                           |
| 7. Krishna Parashar   | Summer 2016 - Spring 2017 |
| • “Qualitative Analysis of Code-Tracing Wrong Answers”                  |                           |
| • “Delivering Hints to Students Based on Wrong Answers”                 |                           |
| 8. Steven Chi, “Predicting Struggling Students from Student Answers”    | Spring 2016, Summer 2016  |
| 9. Spenser Chiang, “OK.py Feature: Hints”                               | Spring 2016               |
| 10. Hayden Sheung, “OK.py Feature: Hints”                               | Spring 2016               |
| 11. Kelly Liu, “Qualitative Analysis of Code-Tracing Wrong Answers”     | Spring 2016               |
| 12. Hannah Huang, “Qualitative Analysis of Code-Tracing Wrong Answers”  | Fall 2015, Spring 2016    |
| 13. Michelle Tian, “Qualitative Analysis of Code-Tracing Wrong Answers” | Fall 2015                 |

## ACADEMIC SERVICE

### Duke University

|   |                      |
|---|----------------------|
| • Computer Science Dept. Assessment Liaison                         | Aug 2023 - Now       |
| • Computer Science Advisor  | Aug 2018 - Now       |
| – 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                                       |                      |
| • College Advisor   | Aug 2018 - Now       |
| – 2023-2024 year: 6 students  |                      |
| – 2022-2023 year: 6 students  |                      |
| – 2021-2022 year: 7 students  |                      |
| – 2020-2021 year: 7 students  |                      |
| – 2019-2020 year: 6 students  |                      |
| – 2018-2019 year: 3 students  |                      |
| • Computer Science Dept. Undergraduate Affairs Committee            | Aug 2022 - Now       |
| • Computer Science Dept. Faculty Search Committee Lecturer          | Aug 2022 - Dec 2022  |
| • Computer Science Dept. DUS Assistant Hiring Committee             | Jan 2022 - May 2022  |
| • Computer Science Dept. Undergraduate Coordinator Hiring Committee | Jan 2022 - May 2022  |
| • Computer Science Dept. Space Committee                            | July 2020 - May 2021 |
| • Computer Science Dept. Faculty Search Committee PoP               | Aug 2019 - May 2020  |
| • Computer Science Dept. Communications Committee                   | 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 |
| 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 | April 2021 - Now |
| CRA-WP Table Mentor for Teaching Track Faculty Workshop  | 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 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**

- 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/ck8feed/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 2014
- Mentor female Ph.D. student from University of Florida 2020-2021
- Undergraduate Teaching Assistant (UTA) Diversity Initiative Fall 2020
- Computer Science Education Research Reading Group Summer 2020

## MEMBERSHIPS

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