Rui (Gina) **Bai**

ASSISTANT PROFESSOR OF THE PRACTICE

Department of Computer Science · Vanderbilt University

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Education

North Carolina State University   *Raleigh, NC*

PH.D. IN COMPUTER SCIENCE   *June 2022*

- Advisor: Dr. Kathryn T. Stolee
- Dissertation: Improving Student Testing Practices through a Lightweight Checklist Intervention
- Committee: Dr. Kathryn Stolee, Dr. Sarah Heckman, Dr. Thomas Price, Dr. Shiyan Jiang, Dr. Susan Fisk

Wake Forest University   *Winston-Salem, NC*

B.S. IN COMPUTER SCIENCE, MINOR IN MATHEMATICS   *May 2016*

- Magna Cum Laude

Employment History

Vanderbilt University   *Nashville, TN*

ASSISTANT PROFESSOR OF THE PRACTICE   *Fall 2022 - Present*

North Carolina State University   *Raleigh, NC*

GRADUATE RESEARCH ASSISTANT (SUPERVISED BY DR. KATHRYN T. STOLEE)   *Fall 2016 - Summer 2022*

INSTRUCTOR   *Summer 2020, 2021*

GRADUATE TEACHING ASSISTANT   *Fall 2017, 2020*

Mei & Mark LLP   *Washington, DC*

WEB SUPPORT SPECIALIST (VOLUNTEER)   *Dec. 2016 - May 2021*

Wake Forest University   *Winston-Salem, NC*

UNDERGRADUATE TEACHING ASSISTANT   *Spring 2015*

SUMMER RESEARCH FELLOW (SUPERVISED BY DR. PAÚL PAUCA)   *Summer 2014*

Teaching Experience

Vanderbilt University   *Nashville, TN*

INSTRUCTOR   *Fall 2022 - Present*

- **CS 1101: Programming and Problem Solving (Java)**, 3 credit, undergraduate core course
  - Developed and adapted lecture materials; managed 20+ undergraduate teaching assistants; designed and proctored exams
  - Provided office hours and student meetings; provided assistance to students via emails and piazza posts
  - Semesters Taught: Spring 2023; Fall 2022, 169 students enrolled

North Carolina State University   *Raleigh, NC*

INSTRUCTOR   *Summer 2020, 2021*

- **CSC 116: Introduction to Computing - Java**, 3 credit, undergraduate core course, Summer 2021, 35 students
  - Delivered lectures and supervised in-class labs synchronously online via Zoom
  - Flipped classroom; adapted course materials; managed undergraduate teaching assistant; graded group projects;
  - Provided office hours; provided assistance to students via emails and piazza posts
- **CSC 226: Discrete Mathematics for Computer Scientists**, 3 credit, undergraduate core course, Summer 2020, 21 students
  - Delivered lectures synchronously online via Zoom
  - Developed and adapted course materials; managed two graduate teaching assistants
  - Provided office hours; provided assistance to students via emails and piazza posts

GRADUATE TEACHING ASSISTANT   *Fall 2017, 2020*

- **CSC 712/591: Software Testing**, 3 credit, graduate elective course (for Ph.D. and M.S. students), Fall 2020, 38 students
- **CSC 216: Programming Concepts - Java**, 4 credit, undergraduate core course, Fall 2017, 200+ students (25 in lab)

Wake Forest University   *Winston-Salem, NC*
Undergraduate Teaching Assistant & Student Tutor   *Fall 2013 – Spring 2016*
- **CSC 101: Overview of Computer Science**, 3 credit, undergraduate course for non-CS majors/minors
- Conducted one-on-one and group tutoring sessions on Computer Science, Mathematics, and Mandarin Chinese

Publications [Peer-Reviewed]

Does Assertion Roulette Smell Bad? An Experiment from the Perspective of Testing Education   *VL/HCC 2022*
Gina R. Bai, Kai Presler-Marshall, Susan R. Fisk, Kathryn T. Stolee.
- IEEE Symposium on Visual Languages and Human-Centric Computing

Check It Off: Exploring the Impact of a Checklist Intervention on the Quality of Student-written Unit Tests   *ITiCSE 2022*
Gina R. Bai, Kai Presler-Marshall, Thomas Price, Kathryn T. Stolee.
- ACM Conference on Innovation and Technology in Computer Science Education

How Students Unit Test: Perceptions, Practices, and Pitfalls   *ITiCSE 2021*
Gina R. Bai, Justin Smith, Kathryn T. Stolee.
- ACM Conference on Innovation and Technology in Computer Science Education

How Graduate Computing Students Search When Using an Unfamiliar Programming Language   *ICPC 2020*
Gina R. Bai, Joshua Kayani, Kathryn T. Stolee.
- IEEE/ACM International Conference on Program Comprehension

Improving Students' Testing Practices   *ICSE Doc Sym 2020*
Gina R. Bai.
- IEEE/ACM International Conference on Software Engineering - Doctoral Symposium

Exploring Tools and Strategies Used During Regular Expression Composition Tasks   *ICPC 2019*
Gina R. Bai, Brian Clee, Nischal Shrestha, Carl Chapman, Cimone Wright, Kathryn T. Stolee.
- IEEE/ACM International Conference on Program Comprehension

Investigating the Effects of Gender Bias on GitHub   *ICSE 2019*
Nasif Imtiaz, Justin Middleton, Joymallya Chakraborty, Neill Robson, **Gina R. Bai**, Emerson Murphy-Hill.
- IEEE/ACM International Conference on Software Engineering

Exploring Regular Expression Evolution   *SANER 2019*
Peipei Wang, **Gina R. Bai**, Kathryn T. Stolee.
- IEEE International Conference on Software Analysis, Evolution and Reengineering

Honors & Awards

2021	**Graduate Merit Award Recipient**, College of Engineering, North Carolina State University
2018	**Grace Hopper Travel Scholarship Recipient**, NCSU-ACM-W (Women in Computer Science)
2016-2017	**Graduate Research Award Recipient**, College of Engineering, North Carolina State University
2014	**Research Fellowship Recipient**, Wake Forest University

Professional Service

Program Committee

2023	**Poster Reviewer**, ACM Special Interest Group on Computer Science Education (SIGCSE)

Journal Reviewer

2022	**Manuscript Reviewer**, IEEE Transactions on Learning Technologies (TLT)

Other Service

2017-2020	**Graduate Relations Chair/Member**, NCSU-ACM-W (Women in Computer Science)	*Raleigh, NC*

Miscellaneous

Language   English (fluent), Mandarin Chinese (fluent)

Honor Society   Upsilon Phi Epsilon (International Honor Societies for the Computing and Information Disciplines, invited 2015)