

EDUCATION

University of Illinois Urbana-Champaign

Ph.D. in Computer Science

Urbana, IL

Aug 2024–Current

University of California, Berkeley

B.S. in Electrical Engineering and Computer Sciences

Research Advisor: Dr. Gireeja Ranade

Berkeley, CA

Aug 2020–May 2024

RESEARCH INTERESTS

Computer Science Education, Broadening Participation in Computing, AI for Education

PUBLICATIONS

- p1. **B. Agyare**, A. Matsumoto, M. Patel, and G. Ranade, “Student Feedback on Opt-in, Inclusive, Course-Integrated Study Groups,” *IEEE Frontiers in Education Conference*, Oct. 2023.

WORKSHOP PAPERS AND POSTERS

- w2. M. Patel, **B. Agyare**, and G. Ranade, “Increasing Study Group Success With a Supplementary Course for Students in Gateway AI Classes,” *AAAI Symposium on Increasing Diversity in AI Education and Research*, Mar. 2024. Poster.
- w1. F. Ali, **B. Agyare**, G. Guidi, B. Brock, and K. Yelick, “Triangle Counting Algorithm with GraphBLAS,” *LBNL Computing Sciences Summer Program Poster Session*, Aug. 2021. Poster.

WORK EXPERIENCE

IBM T.J. Watson Research Center, *Research Software Engineering Intern*

Integrated Mamba deep learning architecture into team workflow for optimized AI inference.

Tools: Python, PyTorch

May 2024–Aug 2024

Microsoft, *Software Engineering Intern*

Developed storage resiliency measures for virtual storage spaces in Windows.

Tools: C++, WinDbg

May 2023–Aug 2023

Google, *Software Engineering Intern (STEP)*

Built new developer features for Google’s internal code reviewing tool.

Tools: Go, SQL, HTML

May 2022–Aug 2022

Lawrence Berkeley National Laboratory, *Research Intern*

Implemented graph algorithms for complex network analysis.

Research Advisors: Dr. Katherine Yelick, Dr. Benjamin Brock, Dr. Giulia Guidi

May 2021–Dec 2021

AWARDS AND SCHOLARSHIPS

- National GEM Consortium Ph.D. Fellowship, Sponsored by IBM Research 2024
- UC Berkeley Outstanding Graduate Student Instructor Award 2023
- Cal Alumni Association Leadership Award for Returning Students 2023
- Tapia Conference Scholarship, UC Berkeley EECS Department 2023
- Grace Hopper Conference Scholarship, UC Berkeley EECS Department 2022

TEACHING

- **Head Teaching Assistant** at UC Berkeley EECS Spring 2022, Fall 2022, Spring 2023
 - Designing Information Devices and Systems II (EECS 16B)
Fundamental linear algebra and advanced circuitry.
 - Worked with professors to implement course logistics, managed a course staff of >40 TAs, and staffed office hours and online forums for course sizes of 1000, 200, and 400 students.
- **Tutor** at UC Berkeley EECS Fall 2021
 - Designing Information Devices and Systems II (EECS 16B)
 - Staffed office hours and maintained course software infrastructure.

PRESENTATIONS AND TALKS

Talks:

- **Scalable Undergraduate Research Mini-Projects in a Gateway AI Course** Mar. 2024
 - AAAI Symposium on Increasing Diversity in AI Education and Research
- **Inclusive Study Group Formation At Scale** Oct. 2022, Mar. 2023
 - UC Berkeley, CS 375: Teaching Techniques for Computer Science

Panels, Presentations, and Public Speaking:

- **Panel Moderator**, *Toward a more Equitable and Inclusive Future: Student Insights*, hosted by the Alliance for Identity-Inclusive Computing Education Oct. 2024
- **Student Speaker**, *Joint California Summit on Generative AI*, hosted by UC Berkeley CDSS, Stanford HAI, and the California Governor's Office May 2024
- **Panelist**, *A Conversation with the AiiCE Student Advisory Board: Considering Identity & Inclusion in Computing Spaces*, hosted by the Alliance for Identity-Inclusive Computing Education Jan. 2024
- **Student Speaker**, *Joseph T. Gier Memorial Sculpture Dedication Ceremony*, UC Berkeley Sept. 2023
- **Presenter**, *EECS Undergraduate Student Survey Presentation: Diversity in the Department*, at UC Berkeley EECS Faculty Retreat Mar. 2023

Conference Presentations: FIE 2023 [p1]

LEADERSHIP AND OUTREACH

- **Student Advisory Board Member**, Alliance for Identity-Inclusive Computing Education (AiiCE) 2022–Present
- **President**, Black Engineering and Science Student Association (UC Berkeley's NSBE Chapter) 2023–2024
 - Previous: External Vice President (2022-2023), Pre-Collegiate Initiative Chair (2021-2022)*
 - NSBE Annual Convention Attendee: 2021-2024*
- **Committee Member**, UC Berkeley EECS Department Student Anti-Racism Committee Jan.–May 2022

SKILLS

- **Programming Languages:** Python (NumPy, Pandas, PyTorch), Java, C++, C, Go, SQL
- **Advanced Undergraduate Coursework:** Introduction to Machine Learning; Deep Neural Networks; Efficient Algorithms and Intractable Problems; Probability and Random Processes; Optimization Models in Engineering; Principles and Techniques of Data Science; Language, Race, and Power in Education; Doing Feminist Research