Tiva Rocco

tiva.rocco@yahoo.com | 8315376119
Linkedin | Personal Portfolio

EDUCATION

North Carolina State University, *Raleigh, NC* *Aug 2025 – Expected May 2030*
Ph.D. in Computer Science
Research Interests: CS Education, Software Engineering

California State University, Monterey Bay, *Seaside, CA* *Aug 2021 – Dec 2024*
B.S. in Computer Science — Software Engineering

PUBLICATIONS & PRESENTATIONS

[1] **Tiva Rocco** and Joshua B. Gross. 2024. Debugging Server- and Client-Side JavaScript. Journal of Computing Sciences in Colleges (CCSC-NW), 40(2), 18-20. [*Conference Tutorial*]

[2] **Tiva Rocco**, Md. Rawnak Saif Adib, Sarah Heckman, Jeffrey Carver, and Mark Sherriff. 2026. A Systematic Mapping Study on Teaming in Computer Science Education. ACM Transactions on Computing Education (TOCE). [*Under Review*]

PROFESSIONAL DEVELOPMENT

University of Michigan, Ann Arbor, MI *Sep 2026*
NextProf Pathfinder — Participant

Carnegie Mellon University, Pittsburgh, PA *July 2026*
LearnLab Summer School, Educational Data Mining Track — Certificate of Completion

RESEARCH EXPERIENCE

NC State University, *Raleigh, NC* *Jan 2026 – Present*
Graduate Research Assistant, WISER Lab (Advisor: Dr. Sarah Heckman)
- Conduct CS education & software engineering research

Blackwell Research Institute, *New York, NY (Remote)* *March 2026 – August 2026*
STEM Research Mentor
- Guide high-school level students on reading scientific literature, forming research questions, writing a literature review, and submitting for publication

U*nder my mentorship:*

Akzhanov, E. (2026). Strategic independence: Applying game theory to oligopolistic retail pricing. *The Blackwell Research Journal*, Edition VI, 46–47.

Desai, J. (2026). Artificial intelligence and stock market prediction: Effectiveness, limitations, and model comparison. *The Blackwell Research Journal*, Edition VI, 19–22.

Janiczek, K. (2026). Improving Formula 1 performance through calculus-based minimum lap-time optimization. *The Blackwell Research Journal*, Edition VII, [Accepted, Oct 2026]

Kuffel, J. (2026). Trends in unmanned autonomous systems' software and performance capabilities to influence future design. *The Blackwell Research Journal*, Edition VI, 49–50.

Liu, D. (2026). Artificial Intelligence in Diagnostic Radiology: Applications, Limitations, and Future Directions. *The Blackwell Research Journal*, Edition VII, [Accepted, Oct 2026]

California State University, Monterey Bay, *Seaside, CA* *May 2024 – Dec 2024*
Undergraduate Research Assistant, UROC (Advisor: Dr. Joshua Gross)
- Developed software to engage student learning on computational complexity through visualization of energy consumption and environmental impacts of code
- Served as codebase manager offering debugging support to research team and overseeing workflows

TEACHING EXPERIENCE

CSC 326: Software Engineering, NC State University*, Raleigh, NC* *Fall 2025, Spring 2026, Fall 2026*
Lead Graduate Teaching Assistant
- Lead lab instruction for 60+ students, grade assignments, hold office hours to enhance student development and periodically deliver full lectures to 200+ students

NC State Science House, Catalyst Program*, Raleigh, NC* *July 2026*
AI & Organizational Skills Instructor
- Developed and taught two sessions on using AI for organizational skills, time management, and assignments to 60 STEM high school students with disabilities

Watsonville Tutoring Club*, Watsonville, CA* *Oct 2023 – June 2025*
K-12 Mathematics, Reading, & Writing Tutor
- Implemented curriculums tailored to students' level of knowledge and goals for ages 5-17

California State University, Monterey Bay*, Seaside, CA* *Jan 2024 – Dec 2024*
Senior Coordinator, CSUMB TA++ Program
- Offered mentorship and support for new and existing computer science TAs
- Held 3-5 training sessions per semester on TA expectations, ethics, and technical skills

California State University, Monterey Bay*, Seaside, CA* *Fall 2023, Spring 2024, Fall 2024*
Web Development Teaching Assistant
- Assisted professor in leading lab instruction, graded assignments & exams, held office hours

INVITED PANELS

Graduate School Application Workshop – **Alumni Panelist** *California State University, Monterey Bay (Virtual) Dec. 2025*

LEADERSHIP & SERVICE

ACM and Computing Success Center, *North Carolina State University, Raleigh, NC* *Nov 2025 – Present*
Workshop Organizer & Instructor
- Organize and lead GitHub-based personal portfolio workshops, providing free technical and professional development support for computing students

NC State Helping Hands Project, *Raleigh, NC* *March 2026 – August 2026*
Mobile App Developer
- Built low-cost prosthetic hands for children, contributed to the complete iOS/Android mobile application from the ground up using React Native and TypeScript
- Built real-time Bluetooth Low Energy communication between the application and an Arduino-powered prosthetic, enabling children ages 7-12 to monitor their device's sensor activity, signal strength, and connection health

NC State Women in Computer Science (WICS)*, Raleigh, NC* *Sep 2025 – May 2026*
Student Mentor
- Served three undergraduate and one graduate student, meeting 2+ times per month to discuss coursework, career planning, and strategies for success to support confidence in computing

SIGCSE Technical Symposium, *St. Louis, MO* *Feb 2026*
Student Volunteer

Community Builders of Monterey Bay*, Seaside, CA* *Aug 2023 – Oct 2023*
Web Development Student Volunteer
- Developed a new site aimed at increasing youth involvement within the community using JavaScript, HTML, and CSS

Life Lab*, Santa Cruz, CA* *Jan 2023 – May 2023*
Web Development Student Volunteer
- Led modernization and updates of the lab's website during a hosting platform migration

CERTIFICATIONS & AWARDS

NC State Graduate School, *Raleigh, NC* *June 2026*
Advanced Teaching Certificate
- Developed an 8-week web development course aligned to learning outcomes and objectives, equipped with a syllabus, formative/summative assessment plan, and an AI policy all aligned with evidence-based teaching practices

- Presented 2 micro-teaching demonstrations to cohort to further develop teaching and presentation skills

NC State ACM Chapter, *Raleigh, NC* *April 2026*
Outstanding Graduate TA Award

NC State Graduate School, *Raleigh, NC* *March 2026*
Teaching Certificate