Syracuse University
College of Engineering
& Computer Science

Nathalie Uwamahoro
Ph.D. candidate
SU email
Personal Website

Outstanding TA Award selection committee
Graduate School
304 Lyman Hall
Syracuse, NY 13210
February 23, 2025

Subject: Application for Outstanding TA Award

Dear Outstanding TA Award Selection Committee,

I am excited to submit my teaching portfolio for the Outstanding Teaching Assistant Award. As a third-year PhD candidate in Electrical and Computer Engineering (ECE), I am honored to be nominated for this award, representing the Electrical Engineering and Computer Science (EECS) department. Originally from Rwanda, I hold a Master's degree in ECE from Carnegie Mellon University and have completed all coursework and PhD qualifiers. I have been a member of the Smart Grid Research Lab, mentored by Dr. Sara Eftekharnejad, since Fall 2022.

Since 2023, I have had the privilege of serving as a Teaching Assistant for several mandatory undergraduate courses in computer science and engineering. These courses have consistently achieved strong outcomes, with many students earning spots on the Dean's List in 2025. Additionally, I was honored to be selected as a Teaching Mentor for new TAs in the summers of 2024 and 2025, and I am serving on the 2025 Teaching Mentor Selection Committee.

I have been a TA for large, required courses with over 120 students specifically for Fall semesters, including CIS 151 (Fall 2023, Spring 2024), CIS 351 (Fall 2024, Spring 2025). In my role, I emphasize the importance of academic integrity, foster collaboration, and encourage students to attend office hours with TAs and instructors. I regularly check in with students during labs to ensure they are well-prepared for labs and exams. My approach blends technical instruction with social skills, ensuring students not only gain strong programming abilities but also receive detailed feedback on assignments, highlighting areas for improvement.

In addition to my teaching responsibilities, my doctoral research focuses on power system stability and reliability, incorporating both traditional electrical engineering techniques and advanced machine learning methods. I am developing an innovative flexibility metric for power grids facing renewable energy uncertainties. This work is currently in progress and will be published soon. I also received the First Place Graduate Research Paper Award at the 55th North American Power Symposium (NAPS 2023) for my research on predicting cascading failures in power grids.

My passion for teaching, supported by the guidance of faculty at both Syracuse University and Carnegie Mellon, has shaped my teaching philosophy. I am proud of my contributions to the teaching community at Syracuse University, having been recognized with the Teaching Mentor role for the summers of 2024 and 2025. I am confident that my experience and dedication make me a strong candidate for this award.

Preparing this portfolio has allowed me to reflect on my teaching journey, and I am eager to continue contributing to the Teaching Assistant community at Syracuse University, particularly as a Teaching Mentor in the 2025 Orientation Program. I appreciate your time and consideration.

Sincerely,

Nathalie Uwamahoro