

## The past: my background and values

As a woman from a low-income family in Eastern Europe, I have a unique perspective when it comes to the meaning of diversity, equity, and inclusion (DEI). My hometown, in the northeast corner of Romania, is one of the poorest and most undeveloped parts of the country, but also, incredibly, the birthplace of many writers, scientists, and leaders. There is something about growing up in the simplest of conditions, which allows one to develop a clarity of thought and, oftentimes, high ambition, and curiosity to discover the world.

I learned from a very young age that education is precisely what could lift me from my meager circumstances. Competing in Math Olympiads and contests beginning in third grade allowed me to develop my logical thinking and analytical skills while instilling in me a deep passion for science. In Romania, the prizes in Math competitions have mostly been won by girls, and I always strived to be one of them. “The three Oanas will take all our prizes!” I would often hear from professors in various schools across the country as I and my two colleagues with the same name would participate in these contests. Needless to say, I grew up oblivious to the notion that “women are not good at science”. Only after coming to the U.S. did I discover that this is, sadly, a widespread belief. Despite this prevailing idea, I am confident that this is completely untrue.

My background taught me how important it is to **listen and be an ally to students**. Sadly, many of my early teachers were unapproachable and inspired fear, which distanced themselves from students. Only recently, I discovered how great it is to have friendly and welcoming teachers who **promote mutual respect and initiative in their students**.

Even though I come from a competition-focused background, I do not look to promote it in students. Instead, I learned that **teamwork and the ability to collaborate effectively** are more valuable, as they allow for *all* students, regardless of their backgrounds, to learn. I am comfortable with various teaching techniques to encourage student collaboration, such as *active learning* and *think-pair-share*, as I incorporated them in numerous mentoring and teaching hours.

## The present: my DEI experience

I have extensive experience working with students from diverse backgrounds, often those that are underrepresented in computer science. Over the past six years, I have been involved in various activities, such as (1) participating in graduate student panels, (2) mentoring high school, undergraduate, and graduate students in various research projects, (3) teaching an introductory CS course tailored for minority students, (4) co-organizing global NLP mentoring, workshops, and Birds of a Feather (BoFs) sessions, (5) co-organizing an AI Science Museum exhibition, and (6) organizing an acting and public speaking workshop for students.

1. By **participating in student panels**, I have shared my experience in academia and industry and answered questions from students interested in learning more about CS and research. I consider these Q&A sessions very valuable for students who want to decide what career path to follow. Furthermore, these panels make information available to students who might otherwise not have access to it. Recently, I had the pleasure of hearing back from one student who decided to change her path to be more research-focused after participating in one of the panels. She and I are working together on her first research project, and I love her enthusiasm.
2. As a **volunteer for AI4All summer school**, I introduced underrepresented minority high school students to AI. I taught them how to code in Python, implement an NLP project related to social good, and present their results. As part of the social good NLP project, we worked with the HappyDB dataset to automatically discover what makes people happy. At the end of summer camp, the student’s enthusiasm and determination to continue exploring AI and programming were evident as they proudly showcased their hard work to their loved ones. I plan to establish similar programs in my future career, as they create opportunities for underrepresented students to join CS programs.
3. As a **primary Instructor in the Discover CS Course (EECS 198)** at the University of Michigan, I had the opportunity to teach an introductory CS course primarily designed for

underrepresented minorities in CS. Apart from learning the basics of coding, the class had activities to inform students about what a career in CS might look like, such as meeting computing professionals to hear about their experience, visiting local CS companies, and exploring interdisciplinary applications of CS. Such classes offer a unique opportunity for students to discover how programming can benefit their future in any discipline they choose. Even more importantly, they obtain insider information into a possible career in CS.

4. As a **co-organizer of the ACL Year Round Mentorship**, I co-moderate the global panel sessions, help reach out to mentors and promote events on social media platforms. During the monthly sessions, we encourage the mentees to ask the panelists questions. Hosting these events is an ideal opportunity that benefits many people worldwide and brings the research community together to help each other. Our mentorship sessions are **recorded and open access** and have been well received by the global NLP community, with the most popular videos reaching up to 2,500 views.
5. I am currently **co-organizing and creating an AI exhibition at the Michigan Science Center in Detroit**. The exhibition aims to demystify AI for a broad audience by explaining what it is, its current capabilities, and the importance of data in AI models. We have created fun and engaging educational materials using games and puzzles that people of all ages can enjoy. Finally, through these activities, we aim to inspire generations of underrepresented students to pursue careers in CS and AI.
6. My latest and dearest project is **creating and organizing the Launch your Confidence workshop series**. High-achieving students in STEM often suffer from impostor syndrome, which tends to be more common in females and marginalized groups – minority racial and ethnic groups and those with low socioeconomic status. When my impostor syndrome started hindering my performance in interviews and presentations, I discovered **Toastmasters** – an internationally renowned public speaking club, and **Improv** – improvisation at a local theater. I found them beneficial and enjoyable for myself and shared them with my colleagues at the University of Michigan. Specifically, I organize biweekly activities inspired and adapted from what I have learned at Toastmasters and the theatre. Improv activities such as *Yes, and..* teach one to listen, be creative, and embrace mistakes. I carefully designed the activities to involve everyone regardless of their confidence level. The workshop has been ongoing since May 2023 and has succeeded in popularity, with around 15 student participants per session.

### The future: my DEI commitment moving forward

**AI for Personalized Education and CS for Everyone.** Sir Ken Robinson once said that education should aim to help students discover their inner talents and understand the world around them. This will enable them to become active and compassionate citizens and fulfilled individuals. Unfortunately, many problems in schools today, such as disengagement, low graduation rates, alienation, and hostility towards education, stem from neglecting the child's inner world and their need to connect with their own interests and talents. With the help of AI, we can develop education systems for individual needs and abilities. In particular, I aim to research how AI can personalize content as well as attract, and retain more minorities in CS. *Discover CS*, a course designed to introduce underrepresented students to coding fundamentals and the interdisciplinary applications of CS, offers an excellent opportunity for innovation and personalization. Specifically, I plan to collect data on students' learning experiences to compute data analytics on student performance and develop individualized learning plans.

Specifically, I want to: (1) serve as an adviser to student groups who strive to move the needle in DEI issues, (2) design and teach introductory CS courses tailored to underrepresented students, as I believe a field with such a broad societal impact needs diverse representation, (3) continue developing the **ACL Year Round Mentorship** global panel session and the **Launch your Confidence** workshop series, (4) set up a chapter of **AI4All** at Santa Clara University.

Finally, I hope to inspire in my students the same willingness and dedication to help others as my Ph.D. advisor, Rada Mihalcea, instilled in me.