



# AI Institute for Advances in Optimization

Opt-In Newsletter | July 2025



Summers at AI4OPT are always jam-packed with activity. As director, I spend much of the season presenting our research around the world. The kinds of invitations we're receiving speak directly to AI4OPT's growing international reputation. Just this summer, the International Federation of Automatic Control invited us to Norway to talk about AI for supply chains and manufacturing, and the CIOs of all nine Independent System Operators in North America requested a briefing on AI for energy systems.

Our work on optimization proxies, one of AI4OPT's key technologies, won a Best Paper Award at the IISE conference, and our research on e-commerce fulfillment was a finalist in the MSOM Practice-Based Research Competition.

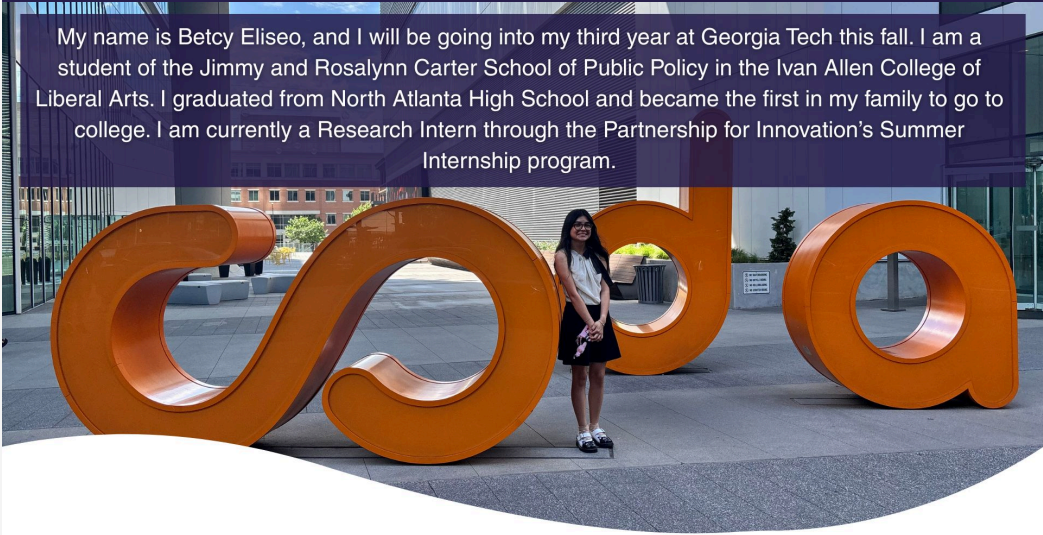
Summer is also when many of our educational programs are in full swing. Several Seth Bonder high school camps have already taken place in California and Georgia, and a brand-new Level-4 camp on generative and agentic AI is happening right now. AI4OPT PhD students are participating in exchanges between sites, and interns have joined the team for summer research. One of these interns, Betsy Eliseo, is spotlighted in this newsletter. As if that weren't enough, the Institute also launched a new program to help high school teachers bring AI into their classrooms. The program

is led by the amazing Ms. White from Drew Charter High School, who is featured below as well.

Another important part of the summer is the collaborative effort to produce our annual report. Teams across AI4OPT come together to reflect on the year's accomplishments and provide input that captures the full scope of our research, education, and outreach activities. We share the report with a panel of external reviewers, who offer valuable feedback on the Institute's strategic direction. I want to thank everyone who contributed to this process. As we wrote in the opening line of the report, we believe this has been AI4OPT's most successful year to date, and we look forward to the reviewers' insights on how we can continue to build on that momentum.

- Pascal Van Hentenryck

## AI4OPT Student Spotlight



My name is Betsy Eliseo, and I will be going into my third year at Georgia Tech this fall. I am a student of the Jimmy and Rosalynn Carter School of Public Policy in the Ivan Allen College of Liberal Arts. I graduated from North Atlanta High School and became the first in my family to go to college. I am currently a Research Intern through the Partnership for Innovation's Summer Internship program.

### From Scholar to Change Maker

I am a current scholar and scholarship recipient through Achieve Atlanta, a nonprofit organization that provides scholarships and educational resources to graduates of Atlanta Public Schools. Achieve Atlanta recently partnered with the Partnership for Innovation to offer internships to its scholars through the Partnership's summer internship program. Based at Georgia Tech, the Partnership for Innovation places accepted applicants in internship positions with organizations across the state of Georgia. A few out-of-state opportunities are also available. I applied to the program and was accepted in late March.

As a public policy major, I was surprised when I was offered an internship position. Looking back, I realize I was naive to think the team only needed engineers or IT professionals. I've since been immersed in a variety of tasks that have been incredible learning opportunities.



## Putting Policy into Practice: Intern Responsibilities

One of my main responsibilities has been research and data collection. These are skills I have obtained from my courses, so it has been really helpful to apply them in a professional workplace setting. It's reassuring that I'm able to use what I've learned in school directly in my day-to-day work in the office. I have also assisted with some logistical planning for work trips and meetings for the project, which has been a neat skill to develop.

Working on the AI Strategy Development project for the country of Panama has been a very immersive learning experience. From day one, I have leveraged my bilingual skills to help both the Tech AI and Panama teams. I have translated reports sent to Tech AI from Panama and facilitated bilingual communications between the two teams. Most recently, I supported the production of a public survey that the team in Panama requested to ensure that the project development process is participatory. I created a survey template in both English and Spanish, and it was really rewarding to see some of my proposed questions in the final version that was distributed to the public.

## Community and Connection

In my free time, I spend a lot of time volunteering throughout the community. I find volunteer opportunities through Hands On Atlanta and GivePulse, which list events happening in Atlanta and metro Atlanta that need community support. I am also an active volunteer at LaAmistad Inc., an organization that aims to bridge the gap in education for Hispanic and Latin students, and LifeLine Animal Project, an animal shelter in Fulton County. Volunteering at events in nearby communities is a great way to meet new people and make connections, which I love doing.



I also enjoy thrifting to find unique clothing items or fun trinkets, reading books and going on walks with my dog to unwind and stay active.

## Words to Live By

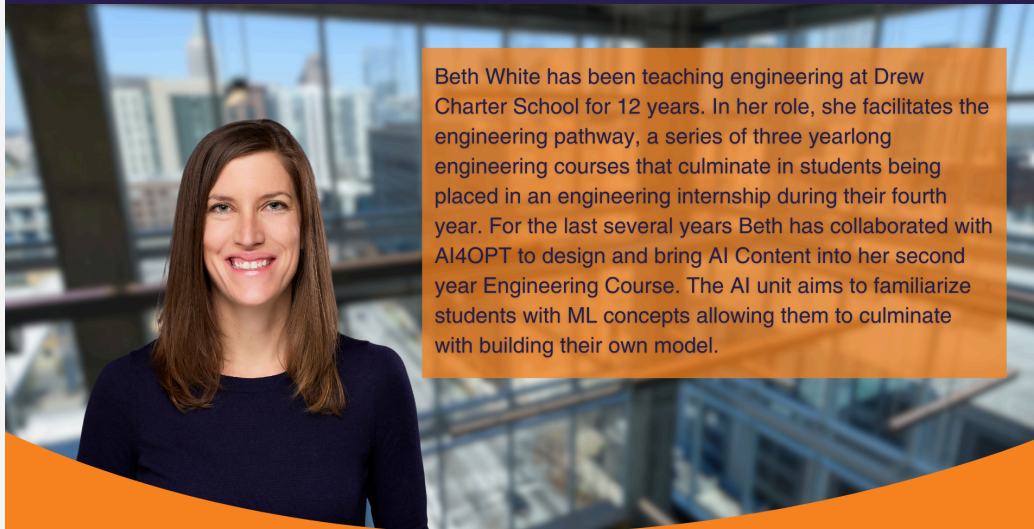
One of my favorite quotes comes from A.A. Milne's *Winnie-the-Pooh*:

*"Promise me you'll always remember: You're braver than you believe, and stronger than you seem, and smarter than you think."*

I turn to this quote whenever I feel overwhelmed or unsure of myself. Whether I'm dealing with a tough class or facing a difficult decision, it reminds me of my strengths and gives me the confidence to move forward.



## AI4OPT Member Spotlight



Beth White has been teaching engineering at Drew Charter School for 12 years. In her role, she facilitates the engineering pathway, a series of three yearlong engineering courses that culminate in students being placed in an engineering internship during their fourth year. For the last several years Beth has collaborated with AI4OPT to design and bring AI Content into her second year Engineering Course. The AI unit aims to familiarize students with ML concepts allowing them to culminate with building their own model.

## Path to Partnership with AI4OPT

My background prior to becoming an educator is as a civil engineer. As an educator of more than a decade, I feel it is extremely important that our education spaces keep up with technological advances wherever possible. Our partnership started in 2021 when Pascal was interested in expanding access to ML content to high school students and I was interested in learning the content and teaching it to my students! Prior to our partnership, I was partnering with Tuba Ketenci who was hosting one or two of my high school students as interns in GTISYE, and our partnership has been beneficial for my students as well.

## Collaborating for Impact

I have supported the development of the ML unit described above and also rolled it out in my classroom, partnering to iterate the curriculum so that it can best serve the needs of high school students. I have also contributed to the AI4OPT Team's NSF

reporting efforts and most recently we traveled to the US Congressional AI Caucus in Washington DC to present our work to policymakers in the AI Education space.



Finally, I have created, promoted, and co-facilitated webinars to recruit teachers to the teacher training program this summer in the first AI4OPT High School AI Teacher Training Program. I served as the facilitator of the program which involved the development of the instructional agenda, and led the program's delivery.

### AI in the Classroom



AI4OPT is now a long time partner. We teach ML to our students in Engineering concepts, building our students efficacy and understanding of ML and ML careers. Students typically complete their projects with a tour of AI4OPT and Georgia Tech and by presenting their work to the AI4OPT Team. At times the AI4OPT Team has also come to Drew Charter for student showcases.

Students who have completed our unit have also served as mentors for the Seth Bonder Camp Level 3. In this mentorship role AI4OPT pays them to support other students who are undertaking the same content they are familiar with. They are very proud to have this experience! Additionally, my program regularly has students pursue their careers at Georgia Tech but this year is the first year we had a student admitted to pursue a BS in Industrial & Systems Engineering!

### Life Outside the Classroom

I enjoy exercising, which includes running, cycling, or weightlifting as well as spending time outdoors camping and hiking. I also make modern hardwood furniture.

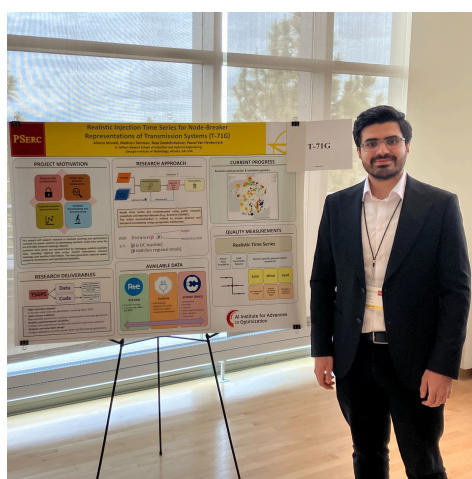
### Words of Inspiration

"It is our role as educators to make the work fun and relevant to our students, and if we do, they will rise to any challenge!"

## News and Featured Events



Seth Bonder Camp Launches Summer Session



AI4OPT PhD Student, Alireza Moradi, Presents Power Systems Research



Research on Dual Optimization Proxies Wins Best Paper Award at ISE



AI4OPT Hosts Summer Faculty Training



Pascal Van Hentenryck Delivers Keynote at IFAC MIM 2025



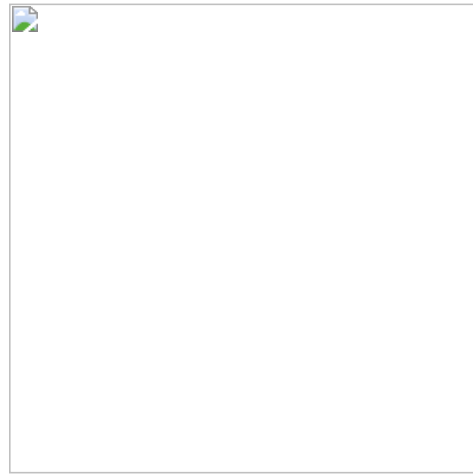
AI4OPT Highlights Advances in Energy Systems at IISE 2025



Opportunities and Challenges in the Texas Power Grid Seminar



Rosie Kim Optimizes Strategic Locomotive Assignment

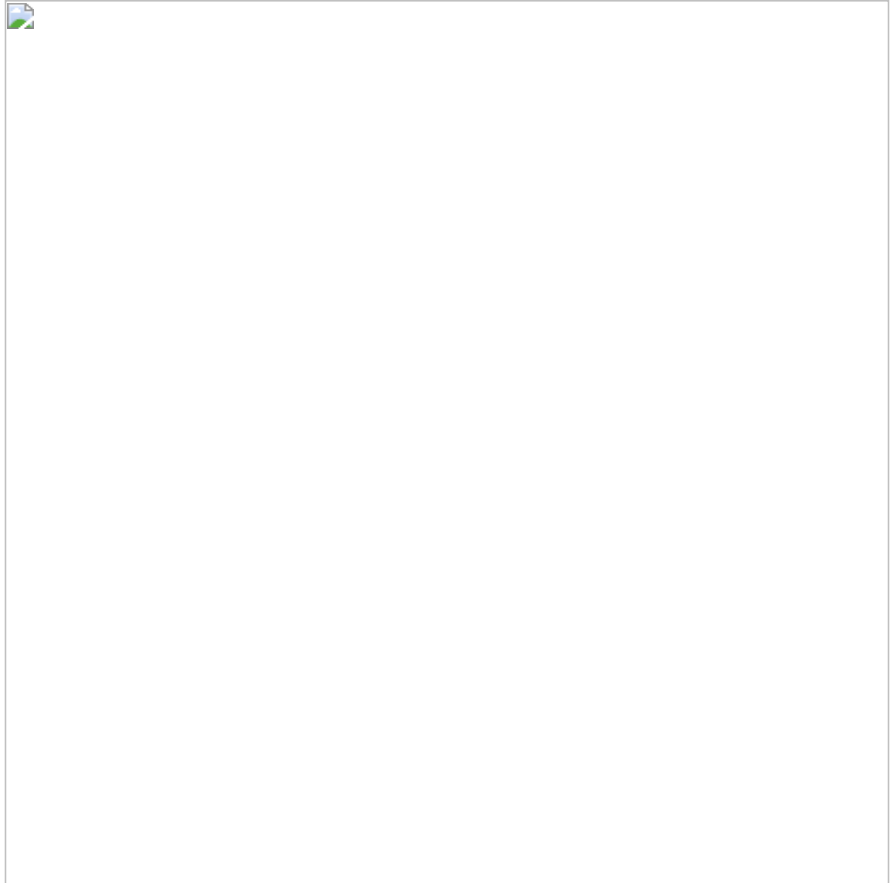


High School Teacher Training Empowers Educators



Quad AI Engage Workshop on AI and Digital Agriculture

## Upcoming Events



[Seth Bonder Camp Level 4](#)

## Publications

AI4OPT publications available on [Google Scholar](#).

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