AI and Social Good Workshop

CS is one of the most competitive majors for college applicants, and Interface is excited to offer this unique opportunity for CS students to stand out!

This workshop will include both discussion and hands-on activities.

Participating in this workshop will allow students to demonstrate that they are not only interested in AI, but they are also concerned about the potential impacts of AI – both positive and negative – on society. Colleges are looking for students who think about the how their future careers will contribute to their community, rather than just how college will benefit them!

Plus, students will write a short non-academic piece related to AI's impacts on society, which will be reviewed by the PhD's teaching the class. One of Interface's Writing Workshop instructors will then help students revise their pieces and submit them for publication. If the students are published, that will further distinguish them in the application process!

This class is not just for students who want to major in fields related to CS!

What the program will cover:

This program will consist of four 2-hour sessions, which will include discussion and hands-on activities such as designing a "nudge" for an app and visualizing different ways to optimize a deep neural network (DNN) trained on real-life census data using Google's What-If Tool (WIT).

Session 1: Algorithmic Bias and Fairness: Much of human decision-making is now being automated. Algorithms and predictive models based on collected data are being used to determine who gets a job offer, which neighborhoods get policed, whether someone gets bail, the length of a jail sentence, which families receive needed services and resources, who gets investigated for fraud…but some worry these algorithms are discriminatory. Can an algorithm be sexist or racist? How might its decisions be fair or unfair?

Session 2: The Attention Economy: Companies like Google and Facebook make their money from advertising. This means they have incentive to build their platforms to maximize user engagement, i.e., keeping you scrolling, clicking, etc. At the same time, they collect data about their users. By building predictive models from this data, they can make advertisement more persuasive for users, delivering it at the right time or presenting it in the most enticing light. What are the ethics of these practices? Topics we will discuss tech addiction, attention hacking, nudging, and micro-targeting.

Session 3: Green Computing: AI takes a large amount of energy to train and run. The carbon emissions for cloud computing are disconcertingly high. The environmental impact of computer production is substantial. What are the ethical considerations? What sort of trade-offs between innovation and protection of the environment are permissible? What obligations might we have to future generations?

Session 4: Social Media, Echo Chambers, and Filter Bubbles: We live in an era of misinformation and polarization. We tend to only be exposed to news and content that already aligns with our views. Extremist content and fake news are on the rise. What role has social media played in all this? How do recommender systems exacerbate this problem? What are our responsibilities as individuals? What are the responsibilities, if any, of the tech companies to address this problem?

Students will have a reading assignment of about 20 minutes for each session. They will also write one short paper for the workshop, which will be due a few weeks after the workshop ends. The paper will be between 1-3 pages, about a topic related to the workshop. This will not be a research paper. Rather, students will be encouraged to pick a topic that will allow them to write a piece that they can submit to general publications for teen writers and readers, which will increase their chances of being published. Dr. Magnani or Dr. Kennedy will review the papers and provide comments.

Instructors

Dr. Meica Magnani is a Postdoctoral Fellow in the Harvard University Philosophy Department. She also co-runs Harvard's Embedded EthiCS Teaching Lab, a program that integrates ethical reasoning into Harvard's computer science curriculum.

Dr. Magnani received her PhD in philosophy from Stanford and has an undergraduate degree in Philosophy and a master's degree in Humanities from Johns Hopkins University. Additionally, she was one of 11 pre-doctoral Humanities Fellows chosen for MIT's 2016 pre-doctoral program.

Dr. Magnani has helped teach many Stanford undergraduate classes, as well as having extensive experience teaching philosophy to high school students through the Johns Hopkins Center for Talented Youth, a program that provides classes for academically gifted students.

Dr. Susan Kennedy is a Postdoctoral Fellow working in the Embedded EthiCS Laboratory at Harvard University. As a lecturer in the Harvard CS Department, she has presented to undergraduates on topics including "Democracy and the Digital Public Sphere" and "Surveillance, Privacy, and Power." She has also lectured on the responsible design, development, and deployment of artificial intelligence as a lecturer for Harvard EdX. She is the current Director of the Ethics and Policy Branch of the Institute for Medical Artificial Intelligence, and her areas of specialty include the ethics of technology and bioethics.

Class schedule:

Friday nights (August 6, 13, 20, 27) at 8 -10 pm (Central Time USA)

Saturday mornings (August 7, 14, 21 and 28) at 9 -10 am (China time)

The student's short papers will be due by September 18th

This class will be limited to a small number of students to ensure more personal attention. Contact your Interface Customer Service or Sales representative to reserve a spot!