Course Notes for CHI 2021 C03: Introduction to Explainable AI

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Course website: https://hcixaitutorial.github.io/

Course materials: We will update the course slides on the course website.

Course time: You should be registered for one of the following slots:

1. Monday May 10: CEST 17-19 / PDT 08-10 / EDT 11-13 / JST 00-02 (next day)
2. Wednesday May 12: CEST 17-19 / PDT 08-10 / EDT 11-13 / JST 00-02 (next day)

Thank you for registering for the course!
This is an introductory course to the topic of explainable AI (XAI). In the first part of the course (~60 minutes), we will give a presentation to cover topics such as:

- What is explainable AI?
- How to explain? What are some state-of-art techniques?
- Why is XAI important?
- How to design XAI systems?
- What are some resources for implementing and designing XAI?

The content will be an overview and we will provide references in the slides for you to dive deeper on your own. We will leave some time for questions.

The course does not require prior knowledge on the topic of XAI. However, it would be helpful to know the basics of machine learning, such as what is training data, features, classification, regression, etc., and what are some common ML applications. You do not need to know the mathematical details. IBM Design has a page: https://www.ibm.com/design/ai/basics/ml/
You can easily find more by searching for "machine learning basics".

In the second part of the course (15-30 minutes depending on the audience's interest), we will walk you through a python Jupyter Notebook to implement XAI techniques. **This part is optional.** You may choose to just watch the code demonstration or try it hands-on.

Since this is going to be a virtual course, it could be difficult for us to attend individual requests to help with running the code. We apologize in advance. If you would like to try the code following the instructors' demonstration, we highly recommend you install AIX 360 beforehand, by following installation instruction on this page: https://github.com/Trusted-AI/AIX360
And try to make this Notebook running:
https://nbviewer.jupyter.org/github/IBM/AIX360/blob/master/examples/tutorials/HELOC.ipynb

No background reading is required, but you can find latest references on the course website: https://hcixaitutorial.github.io/ . We will keep updating the website before and after the course

Looking forward to seeing you at CHI 2021!