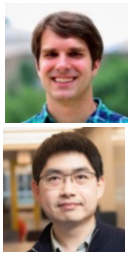
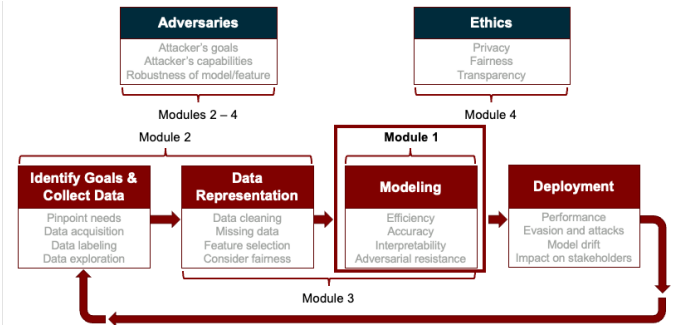
EAGER: SaTC-EDU: Training Mid-Career Security Professionals in Machine Learning and Data-Driven Cybersecurity

Nick Feamster, Yuxin Chen, Blase Ur, University of Chicago

https://professional.uchicago.edu/lp/professional-education/machine-learning-cybersecurity/rfi
https://nprint.github.io/





Challenge

Advancement and re-skilling the United States cybersecurity workforce through large-scale, online training in data-driven and ML methods is critical for keeping the country secure and the workforce competitive.

Solution

The project team will address this critical need by developing curricula for large-scale, online training of mid-career security professionals who aim to develop the skills to apply both conventional and cutting-edge ML tools to cybersecurity.

Impact

(1) online curricular development in data-driven security, to provide mid-career professionals foundations and practical tools for applying these methods to practical problems in network security;

(2) formative research to elicit desired skills and use cases from the workforce;

(3) modular public toolkits and datasets for use in both courses and as resources for professionals to apply in practical settings; and

(4) augmented teaching materials, tailored to individual students, based on intelligent tutoring systems.