Collaborative Research: SaTC: EDU: Artificial Intelligence Assisted Malware Analysis

NSF Grants # 2025682, 2050927, 2133190

Lead PI: Maanak Gupta, Tennessee Tech University, Email: mgupta@tntech.edu
Mahmoud Abdelsalam, North Carolina A&T State University, Email: mabdelsalam1@ncat.edu
Sudip Mittal, Mississippi State University, Email: mittal@cse.misstate.edu

Challenge:

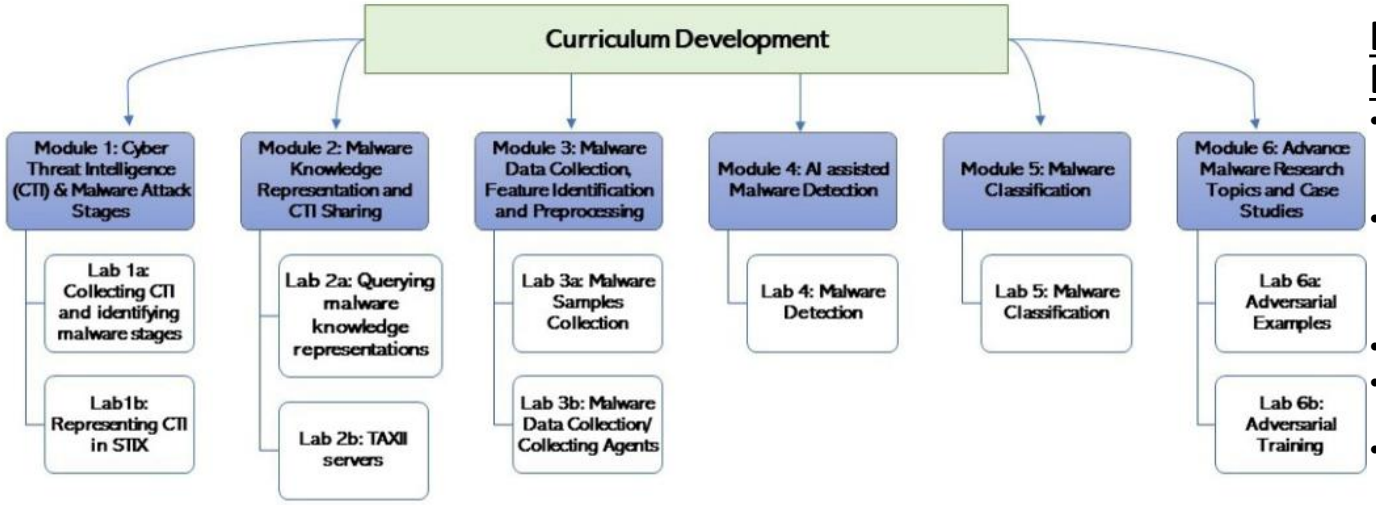
- Next generation workforce equipped with AI assisted Cybersecurity skills.
- Limited courses and hands-on exercises offering such techniques.

Solution:

Designing six plug-in and independent AI cyber modules which can be integrated in cyber, data science or AI/ML courses, or developing an AI for Cyber course.

Scientific Impact:

- Transferable, independent and portable modules for AI assisted Malware analysis.
- Hands-on lab exercises and case studies driven curriculum.
- Working with real-world datasets to gain experiential learning experience.



Broader Impact and Broader Participation:

- Empowering over 400 students annually with advanced cyber skills.
- Outreach workshops and tutorial sessions in minority focused conferences such as WiCyS and SHPE.
- Faculty Development workshop.
- Integration in different Cyber or AI/ML courses.
- Producing Scholarly Research papers.

Project Website and Resources: https://sites.google.com/view/nsfsatcaima/home