Oral Defense Announcement
University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree
Doctor of Philosophy in Computer Science

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M.S. in Cybersecurity, December 2017, Webster University
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The Global Rise of Online Devices, Cyber Crime and Cyber Defense: Enhancing Ethical Actions, Counter Measures, Cyber strategy, and Approaches

Date: March 23, 2022
Time: 10:00 a.m. to 12:00 p.m.
Place: Remote

Abstract
The rise of online devices, online shopping, online gaming, online users, and online teaching has ultimately given rise to online attacks and online crimes. As the cases of COVID-19 seem to increase day by day, so do the online crimes and attacks (as many sectors and organizations went 100% online now). The current technological advancements and the cyber war already coined the ethical issue as well as the rise of internet users and the sudden need of ethical cyber defense. This was the problem on one end, and on the other nation states (some secretly, some openly), are investing in Robot Weapons and Autonomous Weapons Systems. New technologies have combined with countries’ security worries to give rise to a new arms race. Because a country / nation can enter the automated weapons space in a way that is impractical for nuclear weapons, nations are trying to make their presence known in both the offline and online battlefields. My thesis is that it is possible to frame the ethical security model based on the increasing online crimes, robot weapons and online attacks.

The main contribution of this dissertation will be to show that there are multiple cyber defense principles, counter measures, and ethical actions to slow down these ongoing threats (which is the first and foremost need in this current online era). Most importantly, the countermeasures and security strategies developed (based on increasing online attacks and rise of AWS) can save billions of dollars (invested in developing autonomous weapons, firewalls & robotics industries for arms race between nation states) and work towards global peace and security.

Defense of Dissertation Committee
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