

2020 SOFTWARE SECURITY SUMMER SCHOOL (SSSS'20)

Virtual Event Hosted by CERIAS@Purdue University

August 3-7, 2020

SSSS'20 will be an online hands-on learning institute. Come learn about a completely new family of tools that offer a transformational approach to reducing risk and attack surface in cyber systems.

More Details and Registration at: <https://www.cerias.purdue.edu/site/ssss20>

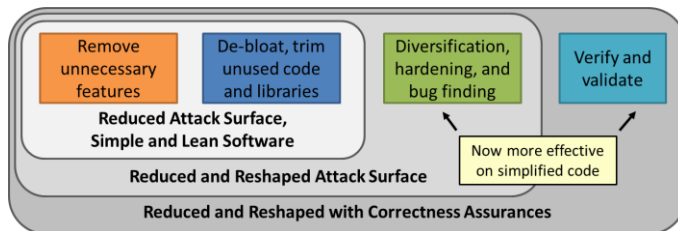
Why Attend?

New cyber exploits keep coming and coming:

- Software is inherently insecure. Popular apps continue to yield new bugs for relatively small attacker resource investment.
- Patching is a never-ending battle. Most software defense strategies are reactive. Bugs cannot be fixed until they are found.

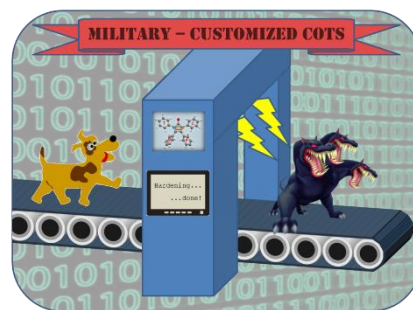
Explore new cyber tools to get ahead of the adversary:

- Proactively cut needless cyber attack surface that exists in your system. The amount of unnecessary risk may surprise you!
 - Learn to debloat legacy code
 - Learn to cut unnecessary features from deployed software
- Explore how this emerging pipeline of post-build security capabilities could harden your critical systems.



SSSS'20 is an opportunity to get hands-on experience with capabilities drawn from R&D efforts under **ONR's Total Platform Cyber Protection (TPCP) program**. Attendees will also give feedback to help influence continued development.

TOTAL PLATFORM CYBER PROTECTION



Tutorial Agenda

August 3: Five exciting pre-tutorial demos on *BIOS debloating, CPS fuzzing, binary rewriting, mobile forensics and OS hardening*

August 4:

- *RAZOR* Post-deployment software debloating
- Binary debloating through control-flow trimming

August 5:

- *Less-is-More*. debloating dynamic web apps
- *JDebloater*. Java bytecode debloating and delayering

August 6:

- *Embrittle*. Binary diversification and fault encouragement
- *CBAT*. binary patch verification

August 7:

- Automated capabilities restriction for Docker containers
- Protocol customization and fuzzing

Each three-hour tutorial consists of

- (i) a short presentation;
- (ii) a demo of tool features; and
- (iii) hands-on exploration with the tool.

