UNIVERSITY OF NORTH CAROLINA CHARLOTTE | COLLEGE OF COMPUTING AND INFORMATICS

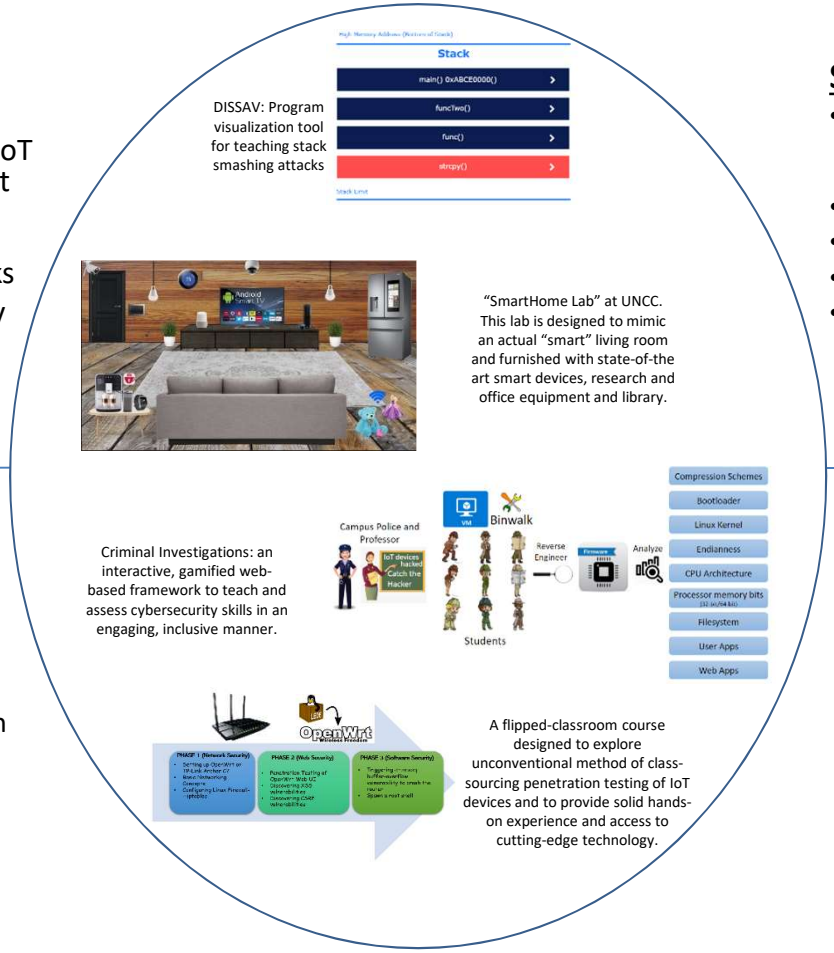
Enhancing Security Education in Hybrid Mobile and Internet of Things Firmware through Inclusive, Engaging, Learning Modules (E-SHIIELD)

Challenge:

- The unprecedented growth of IoT and Hybrid Mobile apps has not been matched by adequate consumer awareness or preparedness to ensuing attacks
- Gaps in advanced cybersecurity education need to be filled to strengthen the nation's cybersecurity workforce

Solution:

- Advanced Cybersecurity Course Development
- Application of Cutting-Edge Pedagogical Techniques, Robust Development & Deployment Plan
- Inclusivity in Curriculum, Outreach and Broad Dissemination
- Creating a Symbiotic relationship between teaching and research



Scientific Impact:

- Stackable course modules in Hybrid Mobile App and IoT Firmware security
- NSA/DHS CAE integration
- Virtual lab development
- Engaged & Inclusive Pedagogy
- Evaluation of content & pedagogy

Broader Impact and Broader Participation:

- K-12 IoT Roadshow
- Faculty Training NC Universities
- Student Theses & Mentoring
- Broad Dissemination
- CCI SmartHome Laboratory
- ACM-W, WiCyS
- Cybersecurity culture

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