

# **Incorporating Standards Education into the Digital Forensics Curriculum**

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# Background

- There is a wide gap between the demand and supply of digital forensics workforce.
- BGSU has recently started offering a digital forensics specialization for BS (in CS) and MS (in CS) students.
- Two assistant professors in the CS department (Yan Wu and Sankar Roy) applied for a NIST grant
  - **Project goal:** To incorporate NIST standards in digital forensics curricula at BGSU, and to disseminate materials to others
- In 2017 September, Wu and Roy were awarded this NIST grant (about \$55K).
  - The official project period is until December of this year (2019).
  - Education expert Kristina LaVenja (at BGSU) serves as the evaluator.

# Incorporating Standards in the Classroom

- Standards for evaluating a **deleted file recovery** tool
  - Developed case studies and modularized lab (i.e., hands-on activity) materials.
    - The related course has been offered twice at BGSU so far.
  - The hands-on activities could be readily used by others.
- Standards for evaluating a **hardware write blocker** tool
  - Developed modularized lab (i.e., hands-on activity) materials.
    - The related course has been offered twice at BGSU so far.
  - The hands-on activities could be readily used by others.



# Dissemination

- In summer of 2019 at BGSU a daylong workshop was offered to fellow educators, students, and professionals in the locality
  - More than 20 participants
  - The participants attended lectures, and they experienced hands-on activities involving NIST standards in digital forensics
  - An electronic copy of the modules and hands-on activity materials were made public to download.
- One paper summarizing the project challenges and contributions has been presented and published in 2019 IEEE ISDFS conference.
- One research paper on evaluation of deleted file recovery tools using NIST standards is in submission.
  - 3 undergrad students actively participated in the research and made important contributions in fundamental research
- A dedicated website and a youtube channel are being built.
  - Containing the developed modules and hands-on labs
  - Two undergrad students have been hired for few weeks.