

## Computer Science Seminar Series, 2013

### National Capital Region

# Digital Artifact Extraction, Analysis, and Manipulation

**Speaker: Prof. Jim Jones**  
**George Mason University**  
**Friday, November 15, 2013**  
**1:00PM- 2:00PM, NVC 325**

### Abstract

Digital forensics is, by scientific standards, still a new and emerging discipline. The practical bookends of digital forensics are relatively mature, in that we have established processes and procedures for the acquisition and presentation of digital evidence. However, the analysis that occurs between those bookends remains a rapidly changing and growing sub-domain with ample research questions and opportunities. In this talk, I will present the current state of several of our active research projects within the area of digital forensic artifact extraction, analysis, and manipulation. Projects discussed will include the recovery of data from damaged optical media, inferring prior actions based on recovered data fragments, the manipulation of live network data, file and device artifact injection and detection, memory fragment classification, and cloud data remanence.

### Biography

Jim Jones is Associate Professor at George Mason University. His research activities are focused on digital forensics, specifically the extraction, processing, analysis, and manipulation of digital artifacts. He has been a cyber security and digital forensics practitioner and researcher in industry, government, and academia for over 20 years. His current and past research has been sponsored by DARPA, DHS, NSF, NPS, DoD, and SAIC. His current appointment is with the Computer Forensics Program within the Department of Electrical and Computer Engineering at GMU. More information can be found at: <http://cfrs.gmu.edu> and <http://ece.gmu.edu/people/full-time-faculty/jim-jones>.

