Curriculum Vitae of Golden G. Richard III

Professor of Computer Science and Engineering
Director, LSU Cyber Center and Applied Cybersecurity Lab
Associate Director for Cybersecurity, Center for Computation and Technology (CCT)
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Personal Data

Born August 12, 1964 in Jennings, LA. U.S. Citizen.

Education

- Ph.D. Computer Science, The Ohio State University, 1995.
 <u>Dissertation Title</u>: "Techniques for Process Recovery in Message-Passing and Distributed Shared Memory Systems," Advisor: Mukesh Singhal.
- M.S. Computer Science, The Ohio State University, 1991.
- B.S. Computer Science (Honors), minor in philosophy, University of New Orleans, 1988.
- GIAC Certified Forensics Analyst (Gold GCFA), 2004-present.

Areas of Expertise

 Cybersecurity, digital forensics, memory forensics, exploit development, reverse engineering, malware analysis, darknet technologies and overlay networks, operating systems, systems programming, distributed systems, networking

Current Affiliations, Duties, and Professional Society Memberships

- Professor of Computer Science and Engineering, LSU, 2017-present.
- Director, LSU Cyber Center, LSU, 2023-present.
- Associate Director for Cybersecurity, Center for Computation and Technology (CCT), LSU, 2017-present.
- Member, Sigma Xi, 2020-present.
- Member, AAAS, 2024-present.
- Fellow of the American Academy of Forensics Sciences (AAFS), 2014-present.
- Editorial Board, Computers and Security (Elsevier), 2016-present.
- Editorial Board, Digital Investigation (Elsevier), 2005-present.
- Editorial Board, Forensic Science International (FSI): Reports, 2019-present.
- Member of the Association for Computing Machinery (ACM).
- Member of the IEEE Computer Society.
- NSA CAE-CO PoC for LSU.
- Owner, Arcane Alloy, LLC, 2012-present.

Selected Recent Books/Chapters

• C. J. Hoofnagle and G. G. Richard III, Cybersecurity in Context, Wiley, 2024.

Updated: 9/11/2024 Page 1

• G. G. Richard III, "Disinformation: A Cybersecurity Perspective," In The Disinformers: Social Media, Disinformation, and Elections, LSU Press, 2024. ISBN: 9780807182581.

Selected Recent Journal and Conference Publications

- A. Case, A. Sellers, G. G. Richard III, D. McDonald, G. Moreira, "Defeating EDR Evading Malware with Memory Forensics," DEFCON, August 2024.
- C. Bowen, A. Case, I. Baggili, G. G. Richard III, "A Step in a New Direction: NVIDIA GPU Kernel Driver Memory Forensics," Forensic Science International: Digital Investigation, vol. 49, July 2024.
- J. Jankura, H. Catallo-Stooks, I. Baggili, G. G. Richard III, "Catch Me if You Can: Analysis of Digital Devices and Artifacts Used in Murder Cases," International Conference on Digital Forensics and Cyber Crime, November 2023.
- C. Glass, R. Mettig, A. Case, G. G. Richard III, "Assessing the Threat of Rosetta 2 on Apple Silicon Devices," *Digital Investigation, Forensic Science International: Digital Investigation*, vol. 46, September 2023.
- A. Alshaya, A. Kardoff, C. Facundus, I. Baggili, G. G. Richard III, "Memory Forensics of the OpenDaylight Software Defined Networking (SDN) Controller, "Proceedings of the 18th International Conference on Availability, Reliability, and Security (ARES 2023), August 2023.
- A. Ali-Gombe, S. Sudhakaran, R. Vijayakanthan G. G. Richard III, "RGB Mem: At the Intersection of Memory Forensics and Machine Learning," Proceedings of the 2023 Digital Forensics Research Conference (DFRWS 2023), July 2023.
- L. Pace, L. Salmon, C. Bowen, I. Baggili. G. G. Richard III, "Every Step You Take, I'll be Tracking You: Forensic Analysis of the Tile Tracker Application," *Proceedings of the 2023 Digital Forensics Research Conference* (DFRWS 2023), July 2023.
- A. Case, G. Moreira, A. Sellers, G. G. Richard III, "New Memory Forensics Techniques to Defeat Device Monitoring Malware," *Blackhat USA 2022*, August 2022, Las Vegas.
- M. Manna, A. Case, A. Ali-Gombe, G. G. Richard III, "Memory Analysis of .NET and .Net Core Applications," *Proceedings of the 2022 Digital Forensics Research Conference (DFRWS)*, July 2022, virtual.
- S. Sudhakaran, A. Ali-Gombe, A. Case, G. G. Richard III, "Evaluating the Reliability of Android Userland Memory Forensics," *Proceedings of the International Conference on Cyber Warfare and Security*, 2022.
- A. Case, G. G. Richard III, "Fixing a Memory Forensics Blind Spot: Linux Kernel Tracing," *Blackhat USA 2021*, August 2021, Las Vegas.

Selected Recently Funded Grants/Contracts

- "ADP68: NASIC T-2 Program FY23," NextFlex, PI, \$187,218, 2024-2025.
- "NSF POSE: Phase II: Nexus: Harnessing open High Performance Computing (HPC) through HPX," National Science Foundation, co-PI (with Mohammad Tohid, Hartmut Kaiser, Wayne Newhauser, Deborah Goldgaber), \$1.5M, 2024-2026.
- "Adding STIX Support to the Volatility Memory Forensics Framework," CINA / Department of Homeland Security (DHS), ," PI (with Aisha Ali-Gombe, Abe Baggili), \$500K, 2024-2026.
- "Memory Forensics-Guided Execution Reconstruction for Android Devices," CINA / Department of Homeland Security (DHS), co-PI (with Aisha Ali-Gombe, Abe Baggili, Umar Farooq), \$500K, 2024-2026.
- "LSU Cyber Clinic for Small Businesses," National Security Agency, co-Pi (with PI Aisha Ali-Gombe, Co-PIs Anas Mahmoud, Scott Sullivan, Glenn Sumners, Rudy Hirschheim, Helmut Schneider, Greg Trahan, Andrew Case), \$1.5M, 2023-2025.
- "POSE: Phase I: Constellation: A Pathway to Establish the STE||AR Open-Source Organization," National Science Foundation, co-PI (with M. Tohid, H. Kaiser, P. Diehl of LSU), \$300,000, 2022-2023.

Updated: 9/11/2024 Page 2