

2020 IEEE Symposium on Visualization for Cyber Security (VizSec 2020)

**Virtual Conference
28 October 2020**



IEEE Catalog Number: CFP2061I-POD
ISBN: 978-1-7281-8263-6

**Copyright © 2020 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP2061I-POD
ISBN (Print-On-Demand):	978-1-7281-8263-6
ISBN (Online):	978-1-7281-8262-9
ISSN:	2639-4359

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2020 IEEE Symposium on Visualization for Cyber Security (VizSec) **VizSec 2020**

Table of Contents

Foreword .vii.....
Committees .viii.....

Technical Papers

A Visualization Interface to Improve the Transparency of Collected Personal Data on the Internet .1.....
Marija Schufrin (Fraunhofer IGD, Germany), Steven Lamarr Reynolds (Fraunhofer IGD, Germany), Arjan Kuijper (Fraunhofer IGD; TU Darmstadt, Germany), and Jörn Kohlhammer (Fraunhofer IGD; TU Darmstadt, Germany)

Exploratory Analysis of File System Metadata for Rapid Investigation of Security Incidents.11.....
Michal Beran (Masaryk University, Czech Republic), František Hrdina (Masaryk University, Czech Republic), Dan Kouřil (Masaryk University, Czech Republic), Radek Ošlejšek (Masaryk University, Czech Republic), and Kristína Zákopčanová (Masaryk University, Czech Republic)

Visualization for Spectators in Cybersecurity Competitions .21.....
Chao Peng (School of Interactive Games and Media, Rochester Institute of Technology, NY), David Schwartz (School of Interactive Games and Media, Rochester Institute of Technology, NY), Daryl Johnson (Department of Computing Security, Rochester Institute of Technology, NY), Bill Stackpole (Department of Computing Security, Rochester Institute of Technology, NY), Chad Weeden (Esports and CyberSecurity Range, Rochester Institute of Technology, NY), Jacob Marcovecchio (School of Interactive Games and Media, Rochester Institute of Technology, NY), Drake Richards (School of Interactive Games and Media, Rochester Institute of Technology, NY), Chris Fogle (School of Interactive Games and Media, Rochester Institute of Technology, NY), Christopher Brown (School of Interactive Games and Media, Rochester Institute of Technology, NY), and Victoria Walrond (School of Interactive Games and Media, Rochester Institute of Technology, NY)

Interpretable Visualizations of Deep Neural Networks for Domain Generation Algorithm Detection .25.....
Franziska Becker (University of Stuttgart), Arthur Drichel (RWTH Aachen University), Christoph Müller (University of Stuttgart), and Thomas Ertl (University of Stuttgart)

Improving Interpretability for Cyber Vulnerability Assessment Using Focus and Context
Visualizations 30.....
*Kenneth Alperin (Massachusetts Institute of Technology), Allan B.
Wollaber (Massachusetts Institute of Technology), and Steven R. Gomez
(Massachusetts Institute of Technology)*

Malware vs Anti-Malware Battle - Gotta Evade 'em All! 40.....
*Emily Chaffey (Royal Holloway, University of London) and Daniele
Sgandurra (Royal Holloway, University of London)*

Author Index 45