E. Honors and Awards

Outstanding Performance Recognition from Lockheed Martin, Inc., FL, 2010

Outstanding Service Award for 2003 from IEEE (Institute of Electrical and Electronics Engineers)

Teacher of the Year Award - from the Dept. of Computer Science Club, 2002

Award of Support to the Department of Computer Science Club, 2002

F. Invited Talks

'User-Centered Cyber Security' at the IEEE sponsored 9th Southeast Symposium on Contemporary Engineering Topics (SSCET) and 1st University of Alabama Huntsville Engineering Forum (UAH-EF), University of Alabama in Huntsville, Huntsville, AL, August 3, 2018

'How to Avoid Being the Phish' at the IEEE sponsored 7th Southeast Symposium on Contemporary Engineering Topics (SSCET), Jackson State University, Jackson, MS, August 26, 2016

G. Selected Publications/Presentations:

A Machine Learning based Threat Intelligence Framework for Industrial Control System Network Traffic Indicators of Compromise, presented at the IEEE SouthEastCon21, Atlanta, GA (virtual), March 10-14, 2021, pp. 1-5, doi: 10.1109/SoutheastCon45413.2021.9401809

Malware Classification of Portable Executables using Tree-Based Ensemble Machine Learning, IEEE SouthEastCon 2019, Accepted for Publication, 2019, pp.1-6, doi: 10.1109/SoutheastCon42311.2019.9020524

Modular Analysis of Software Architecture Model. Proceedings of International Conference on Software Engineering Research and Practice, Las Vegas, NV, USA, July 13-16, pages 17-23, 2009

Consortium for Bioinformatics Instruction (USDA/CSREES grant): A Mini Case of ALN Collaboration. A Workshop on Advancing HBCU Participation in Asynchronous Learning Network Development, AAMU, Normal, AL, March 17-19, 2006

Use of Artificial Color filtering to improve iris recognition and searching. Pattern Recognition Letters 26:2244-2251, 2005.

Classifying and Predicting Soil Moisture and Temperature using an Artificial Neural Network. World Automation Congress, Maui, HI June 11-15, 2000.

Probabilistic Neural Networks for Multispectral Image Classification. World Automation Congress, Maui, HI June 11-15, 2000.

Artificial Immune Systems in Soil Classification, CATA 2000, New Orleans, LA, March 2000.

An Artificial Neural Network in predicting soil moistures using Levenberg-Marquardt's algorithm, 1999. Proceedings of the IEEE SouthEastCON Conference, March 25-28,

H. Professional Memberships

Senior Member, IEEE (Institute of Electrical and Electronics Engineers)
Member, ACM (Association for Computing Machinery)
Member, ISSA (Information Systems Security Association)

I. Service

Member, Promotion and Tenure Committee College level 2020-present
Member, ISSA Cyber Range Developing Team, 2021-present
Member, Alabama Academy of Science (AAS) Local Planning Committee, 2020
Member, Distance Education Committee (at the University Level), 2007-2012
Member, CETL (Center of Excellence in Teaching and Learning), 2009-2012
Member, Distance Education Committee (at the School Level), 2009-2012
Member, Academic Standards & Curriculum Committee 2004-2009
Member, Project Proposal Review Panel, NSF FIBR Program 2003
Chair, Dept. Exit Exam Committee 2005-2009
Department Web Administrator 2006
Alternate Faculty Senator, 2002-2009
Advisor, Department Computer Science Club 2002-h

Taught bioinformatics courses both synchronously and asynchronously to three universities viz. Alabama A&M University, Tennessee State University and Tuskegee University
Member, Project Proposal Review Panel, NSF FIBR Program 2003
Volunteer, Boys and Girls Clubs of Greater Huntsville, 2000-04
Conducted a mini workshop on Bioinformatics, AAMU, April 17, 2004

K. Research Advising (Thesis/Dissertation)

Classification of Phishing Emails using Machine Learning and Online Privacy Expectations, 2019, MS Thesis Major Advisor
Content Based Malicious Website Classification using Machine Learning, 2019, MS Thesis Major Advisor
Phishing Website Classification using URLs and Machine Learning, 2019, MS Thesis Major Advisor
Malware Classification using Machine Learning and Portable Executable Features, 2019, MS Thesis Major Advisor
Land use change in urbanizing water sheds of North Alabama 1980-2010: Drivers, Impact and Prediction., 2011, Ph.D. Dissertation committee member
Analysis of Environmental Mycoallergens using Bioinformatic tools, 2010, MS Thesis Committee Member
Configuration Management for the Improvement of Software Problem Reporting and Versioning Control., 2007, MS Thesis Major Advisor
An analysis of the current academic advising process and a proposed integrated, comprehensive, web-based interface to a matriculation system, 2007, (MS Thesis Advisor)
A different Approach to Align Sequences: Analysis and Modification of a Local Sequence Alignment Algorithm, 2005, MS Thesis Major Advisor
Digitization of Graduation Admission Process using Object & Web Technology, 2004, MS Thesis Committee Member
User-Retrainable and User-Reconfigurable Software Architecture for Eukaryotic Gene Prediction, 2003, MS Thesis Committee Member

L. Funded Grants and Contracts

NSF ~$240,000 for 2022-24
DoE/NNSA ~$4.7 million for 2020--

DFARS Compliance Training, Friday September 8, 2017, 11:30 am; CyberProtex Training Center, 127 Jetplex Circle, Suite A, Madison, AL 35758

5 Steps to Boost Threat Monitoring, Detection and Response, Wednesday August 30, 2017, 1:00 pm; Cybersecurity Insiders

Next-Gen" Cybersecurity, Exposed: Fighting Post-truth with Facts, Wednesday August 30, 2017, 11:00 AM by ESET

Trends in Cyber Security May 16, 2017, 11:30 am; Andy Bryan, a Sr. Security Consultant for VectraNetworks; Joint Meeting With ASIS; ISSA-NAC; Dynetics 1004 Explorer Blvd NW, Huntsville

Workshop - Splunk Discovery Day, 8 am – 5 pm, May 2, 2017, Birmingham, AL

AI, Big Data, and Cyber security April 18 2017; by ISSA-NAC and Sentar

Modernize your Cybersecurity DFARS Compliance Tracking in 2017 using automated tools, January 24, 2017, 11:30; by Ben McGee, CyberProtex; Tech Power Lunch by ISSA-NAC; Corvid Technologies Auditorium, 655 Discovery Drive NW, Huntsville

Overview of the Ransomware scene in 2016, Tuesday May 10 2016 8:00-9:00 am, by AnubisNetworks, Senior Threat Intel Researcher, BrightTALK

A showcase of Emerging tools for advanced Threat Intelligence and investigative needs, Friday, March 11, 2016, 12:30-1:30pm, A "Tech Power Hour" presentation by North Alabama Chapter Information Systems Security Association at Corvid Technologies, Main Conference Room, 655 Discovery Dr., Huntsville, AL 35806.

Implementing the Cybersecurity Framework, February 24, 2015, at 1:00 pm ET by Dr. James Angle, National Cybersecurity Institute

Proactive Malware Hunting, Wednesday, February 17, 2016, 3:30-4:30 PM by ISMG and sponsored by Malwarebytes

Securing the Email Channel in Healthcare, Wednesday February 17, 2016, 1:30-2:30 PM, by ISMG Campaigns Team and sponsored by Return Path

A Practical Guide to Identifying TTPs With Threat Intelligence, Wednesday February 17, 2016, at 12:00-12:30 p.m. by Levi Gundert, Vice President of Information Security Strategy, Recorded Future; BrightTALK

Defending Against Phishing: Case Studies and Human Defenses, Online workshop Tuesday, February 16, 2016, 1:30-2:30 PM ET, hosted by ISMG and sponsored by PhishMe

Cyber Extortion: Traditional Blackmail with a Cyber Twist, Wednesday December 2, 2015, 12:00 pm, by Dr Michael H. Goldner, Dean of EC-Council University, EC Council University; BrightTALK

Dridex: Chasing a Botnet from the Inside, Wednesday December 2, 2015, 8:00 am; by AnubisNetworks Labs Team

Hackers, Cybercrime & Espionage: The Harsh Reality, Wednesday December 2 7:00 am by Simon Mullis, Global Technical Lead, FireEye; Andy Norton, Senior Architect, FireEye; BrightTALK

DNS Security: Threats and Solutions, Tuesday, November 10, 2015, 11am - 1pm, by Cricket Liu, Corvid Technologies, North Alabama Chapter Information Systems Security Association (NACISSA) at 655 Discovery Dr., Huntsville, AL 35806

Developing a Risk Management Programme for your Organisation, Tuesday, October 27, 2015, 6:00 am, by Joachim Adenusi, Former IRM Director, BrightTALK

10 Things Your Next Cybersecurity Solution Must Do, Tuesday October 20, 2015, 10:00, By Kate Taylor, Manager, Advanced Threat Prevention, BrightTALK

Understanding Software Vulnerabilities, Monday October 20, 2015, 9:00 am, by Marcelo Pereira at Flexera Software, BrightTALK

Webinar, by Colby Clark, Director, Fishnet Security; Brian Stoner, Vice President, FireEye; Carrie McDaniel, Product Marketing Manager, Imperva

Credentials Are the New Exploits: How to Effectively Use Credentials in Penetration Tests, Thursday, August 21, 2014, 2:00 PM ET/11:00 AM PT by Christian Kirsch, Principal Product Marketing Manager, Rapid7

5 Steps to Ensuring Open Source Compliance in the Software Supply Chain: The Harman Case Study, August 7, 2014, 8:30am PT / 11:30am ET, by Alyssa Harvey Dawson, Vice President Legal, Global Intellectual Property at Harman, and Black Duck Software, IEEE CS Computer Society

Full-stack Application Designer for Cloud - the New IBM UrbanCode Deploy with Patterns, Thursday Aug 7, 2014, 1:00 PM - 2:00 PM (Eastern Time), By Joe Wochna (IBM), and Michael Elder (IBM)

ISSA Web Conference - Cyber Weaponization, Tuesday, October 22, 2013, 11:00 AM - 01:00 PM Central

Utilizing the Registry for Forensics, IR, and Malware Analysis Andrew Case, Senior Instructor, The Hacker Academy, October 15 2013 1:00 pm for 45 minutes BrightTALK

Big Data: Controlling the Perfect Storm, Tuesday, Sep 24, 2013, 9:00, Chris Diehl, The Data Guild; Kathy Zeidenstein, IBM InfoSphere Guardium; Matthew Mosley, Northern Virginia, USA Chapter; ISSA Web Conference

Cloud Security Intelligence vs. First Generation Detection and Remediation, Webinar, September 19, 2013, 12:00 noon to 1:00 pm by Grayson Milbourne, Director of Global Threat Research, Webroot, BrightTALK

Predictive Cyber Security: Big Data Analytics, Webinar, September 11, 2013, 4:00 am UTC by Mike Loginov, CEO, Ascot Barclay Cyber Security Group, BrightTALK

The Mobile Malware Threat to Your Network, Webinar, Aug 14, 2013, 10:00 am by Markus Jakobsson, CTO, FatSkunk, BrightTalk Information Security

Malware Automation and How to Protect Against It, Webinar, Jun 12, 2013, 1:00 pm by Christopher Elisan, Principal Malware Scientist, RSA NetWitness

Getting From Reactive to Proactive Endpoint Security, Webinar, June 12, 2013, 11:00 am, Kari Ann Sewell, Endpoint Protection Product Marketing Manager, Symantec

Closing the Loop: Automating Security Response, Webinar, Jun 07, 2013, 12:00 pm, by Anthony Di Bello, Strategic Partnerships Manager, Guidance Software Channel, FireEye Next-Generation Threat Protection

5th Annual Cyber Security Summit, Jun 6, 2013, 07:00 AM to 06:00 PM, North Alabama Chapter, Information Systems Security Association (ISSA), The Von Braun Center, Huntsville, AL

Full Security Visibility For Effective Incident Response, Webinar, Jun 05 2013 11:00 am presented by Joel Ebrahimi, Senior Solutions Architect, Solera Networks

Cyber Security Awareness, Seminar, Wednesday, April 10, 2013, by HADTCI (Huntsville Advanced Defense Technology Cluster Initiative), at NSSTC, Huntsville, AL

SBIR Workshop, Wednesday, February 20, 2013, 9:00-11:30 am by HADTCI at Aegis Technologies, Huntsville, AL

Cyber Attacks: Past, Present and Future,

Analyzing the Most Dangerous Threats…Those That Succeed, Sep 06, 2012, 1:00 pm, by Jay Manni, Director of Engineering, FireEye

The Rising Costs of Targeted Attacks on Financial Institutions, Webinar, Presented by: Jerry Archer, SVP/CSO, Sallie Mae; Phil Lin, Ed Dembowski, FireEye, Aug 23, 2012, 1 pm

The Changing Face of Security Ethics, ISSA Web Conference, Web Conference, November 30, 2011, 11:00 am -1:00 pm CST, Organizer and Presenter: Anna Vembu

Rochester Security Summit - Security Sanity 2011, Rochester, NY, October 4 and 5, 2011

North Alabama Cyber Security Summit, Huntsville, AL June 9, 2011

I/ITSEC (Interservice/Industry Training, Simulation and Education Conference), Orlando, FL Nov 2010

4th Annual Rocky Mountain Bioinformatics Conference, Aspen, CO Nov. 30 - Dec. 3, 2006

2006 DoD Public Key Enabling Technical Forum, Atlanta, GA Oct. 23-26, 2006

Asynchronous Learning Network Development (ALN), Normal, AL, March 16-19 2006

Real-Time & Embedded Computing ConferenceHuntsville, AL, March 2, 2006

Workshop to Enhance Proposal Development Skills and Promote Research Collaborations, NSF, Arlington, VA, Feb 8-10 2006

Data Mining III-A hands-on Application Workshop, Orlando, FL, Feb 3, 2006

Modeling Physical Systems with Simulink for Aerospace and Defense Applications, Huntsville, Nov 29, 2005

Data Analysis and Development with MATLAB for Aerospace and Defense, Huntsville, Oct 25 2005

36th Annual Business/Industry Cluster Conference, AAAMU, Oct 4-5, 2005

Mobile GIS seminar, Nashville, TN, July 22, 2003

Innovative Ideas and Alternatives to Imaging Telescopes Workshop, AAMU, Sept 27-28, 2001

World Automation Congress (WAC 2000), Maui, HI, June 11-15, 2000

CATA 2000, New Orleans, LA, March 2000

IEEE SouthEastCON Conference, Lexington, KY, Mar,25-28,'99

Workshop on Data Compression Processing Techniques for Missile Guidance Data Links, Redstone Arsenal, AL, Dec 2&3 1998