

CURRICULUM VITAE

Michael Nowatkowski, PhD
Associate Professor and Head of the Cyber Program of Study
Augusta University School of Computer and Cyber Sciences
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EDUCATION

Doctor of Philosophy, Electrical and Computer Engineering, Georgia Institute of Technology, Aug 2007 – May 2010. Dissertation titled “Certificate Revocation List Distribution in Vehicular Ad Hoc Networks,” under Dr. Henry L. Owen, III.

Master of Science, Electrical and Computer Engineering, Georgia Institute of Technology, Jan 1999 – May 2000.

Bachelor of Science, Electrical Engineering, Rose-Hulman Institute of Technology, Aug 1986 – May 1990.

PROFESSIONAL CERTIFICATIONS

Certified Information Systems Security Professional (CISSP®): Certified 18 November 2013

GIAC Certified Intrusion Analyst (GCIA): Certified 28 November 2011

GIAC Certified Incident Handler (GCIH): Certified 23 April 2012

GIAC Information Security Professional (GISP): Certified 10 October 2013

GIAC Response and Industrial Defense (GRID): Certified 8 July 2017

PROFESSIONAL EXPERIENCE

Jan 2021 – Present; Associate Professor and Head of the Cyber Program of Study, School of Computer and Cyber Sciences, Augusta University, Augusta, Georgia

Jan 2019 – Dec 2020; Associate Professor, School of Computer and Cyber Sciences, Augusta University, Augusta, Georgia

Jul 2017 – Dec 2018; Associate Professor and Program Director of Cyber Science, Cyber Institute and School of Computer and Cyber Sciences, Augusta University, Augusta, Georgia

Aug 2016 – Jun 2017; Associate Professor, Cyber Institute and Hull College of Business, Augusta University, Augusta, Georgia

Jan 2016 – May 2016; Adjunct Professor, Hull College of Business, Augusta University, Augusta, Georgia

Jul 2013 – Jul 2015; Associate Professor, Army Cyber Institute, United States Military Academy, West Point, New York

Jun 2010 – Jul 2013; Assistant Professor, Department of Electrical Engineering and Computer Science, United States Military Academy, West Point, New York

Jun 2000 – Jun 2003; Instructor and Assistant Professor, Department of Systems Engineering, United States Military Academy, West Point, New York

Sep 1990 – Oct 2016; Officer, United States Army, various assignments in the Signal Corps and Cyber Warfare branches

REFEREED CONFERENCE PRESENTATIONS AND PROCEEDINGS

1. T. Gordon, E. Kilgore, M. Nowatkowski, N. Wylds, "Hardware Reverse Engineering Tools and Techniques," in IEEE SoutheastCon 2019 (SoutheastCon), Proceedings of the, Huntsville, AL, April 2019. <https://doi.org/10.1109/SoutheastCon42311.2019.9020347>
2. P. Maxwell, M. Nowatkowski, "The Unforeseen in Unmanned Vehicles," 2018 IEEE International Symposium on Technology and Society (ISTAS 2018), Washington, D.C., November 2018. <https://doi.org/10.1109/ISTAS.2018.8638276>
3. G. Laws, M. Nowatkowski, J. Heslen, S. Vericella, "Guidelines for cyber hygiene in online education," In M.N. Clay & J. Stone (Eds.) 2018 Distance Learning Administration Annual Proceedings (in press). Paper presented at the 2018 Distance Learning Administration, Jekyll Island, GA. Carrollton, GA: University of West Georgia. June 2018. <https://www.westga.edu/~distance/dla/pdf/Distance-Learning-Administration-2018-Annual.pdf#page=93>
4. D. Raymond, T. Cross, G. Conti, M. Nowatkowski, "Key terrain in cyberspace: Seeking the high ground," 6th International Conference On Cyber Conflict (CyCon 2014), Tallinn, Estonia, June 2014. <https://doi.org/10.1109/CYCON.2014.6916409>
5. J. Hans, M. Nowatkowski, B. Hoyer, et. al, "Optimizing Summer Externships," 121st ASEE Annual Conference and Exposition, Indianapolis, IN, June 2014. <https://www.asee.org/public/conferences/32/papers/9282/view>
6. J. Benin, M. Nowatkowski, H. Owen, "The Effects of Quality of Service on Vehicular Network Pseudonym Distribution in Congested Urban Environments," 2012 IEEE Wireless Communications and Networking Conference Workshop on Wireless Vehicular Communications and Networks, Paris, France, April 2012. <https://doi.org/10.1109/WCNCW.2012.6215523>
7. J. Benin, M. Nowatkowski, H. Owen, "Vehicular Network Pseudonym Distribution in Congested Urban Environments," in IEEE SoutheastCon 2012 (SoutheastCon), Proceedings of the, Orlando, FL, March 2012. <https://doi.org/10.1109/SECon.2012.6196902>
8. J. Benin, M. Nowatkowski, H. Owen, "Vehicular Network Simulation Propagation Loss Model Parameter Standardization in ns-3 and Beyond," in IEEE SoutheastCon 2012 (SoutheastCon), Proceedings of the, Orlando, FL, March 2012. <https://doi.org/10.1109/SECon.2012.6196929>
9. M. Nowatkowski, H. Owen, "Scalable Certificate Revocation List Distribution in Vehicular Ad Hoc Networks," IEEE Globecom 2010 Workshop on Seamless Wireless Mobility (SWiM 2010), Miami, FL, December 2010. <https://doi.org/10.1109/GLOCOMW.2010.5700380>
10. J. Benin, M. Nowatkowski, H. Owen, "Unified Pseudonym Distribution in VANETs," 1st International Workshop on Vehicular Communications and Networking (VECON 2010), Niagara Falls, Ontario, Canada, October 2010. <https://doi.org/10.1109/WIMOB.2010.5645015>
11. J. Benin, M. Nowatkowski, H. Owen, "Framework to Support Per Second Shifts of Pseudonyms in Regional VANETs," IEEE 72nd Vehicular Technology Conference, Ottawa, Canada, September 2010. <https://doi.org/10.1109/VETEFC.2010.5594421>
12. M. Nowatkowski, H. Owen, "Simulation of Certificate Revocation List Distribution in Vehicular Ad Hoc Networks Using ns-3," Workshop on ns-3 2010, Torremolinos, Malaga Spain, March 2010.
13. M. Nowatkowski, J. Wolfgang, C. McManus, H. Owen, "The effects of limited lifetime pseudonyms on certificate revocation list size in VANETS," in IEEE SoutheastCon 2010 (SoutheastCon), Proceedings of the, Charlotte, NC, March 2010, pp. 380-383. <https://doi.org/10.1109/SECON.2010.5453849>

14. M. Nowatkowski, H. Owen, "Certificate revocation list distribution in VANETs using Most Pieces Broadcast," in IEEE SoutheastCon 2010 (SoutheastCon), Proceedings of the, Charlotte, NC, March 2010, pp. 238-241. <https://doi.org/10.1109/SECON.2010.5453881>
15. M. Nowatkowski, J. Wolfgang, C. McManus, H. Owen, "Cooperative Certificate Revocation List Distribution Methods in VANETs," in AdHocNets Niagara Falls, Ontario, Canada: September, 2009. https://doi.org/10.1007/978-3-642-11723-7_44
16. M. Nowatkowski, W. McFadden, "Overview of an Undergraduate Discrete Event Simulation Course," 2003 Advanced Simulation Technologies Conference, Orlando, FL, April 2003.
17. M. Nowatkowski, D. Nogie, "Simulation Analysis of the United States Military Academy Reception Day," 2002 Winter Simulation Conference, San Diego, CA, December 2002. <https://doi.org/10.1109/WSC.2002.1172988>
18. M. Nowatkowski, T. Trainor, "Using Simulation to Support Security Planning at the United States Military Academy," Institute of Industrial Engineers Simulation Solutions (IIE) Conference, San Diego, CA, April 2002.
19. P. Magras, J. Buckingham, W. McFadden, M. Nowatkowski, T. Trainor, "A Decision Support System for Security Planning at the United States Military Academy," Military, Government and Aerospace Simulation, 2002 Advanced Simulation Technologies Conference, San Diego, CA, April 2002.

INVITED PRESENTATIONS

1. A. Gess, M. Nowatkowski, "Oh, And By the Way... Be Secure," presented at the Constellations Virtual Computer Science Professional Development Summit, Jun. 17, 2020, [Online]. Available: <https://www.youtube.com/watch?v=RVx0pxrw6ro>.
2. M. Nowatkowski, "Health Security," Region E Healthcare Coalition Conference, Athens, GA, March 2019.
3. T. Gordon, E. Kilgore, N. Wylde, M. Nowatkowski, "Reverse Hardware Engineering," BSides Augusta, GA, October 2018.
4. M. Nowatkowski, "Electromagnetic Waves, Cell Phones, and Online Safety," Greenbrier Middle School, Evans, GA, March 2017.
5. M. Nowatkowski, "Medical Device Security, Internet of Things, and Cyber Hygiene," Richmond County Medical Society, Augusta, GA, January 2017.
6. M. Nowatkowski, "Medical Device Security," CIRCA (Celebration in Research and Creative Activities), Augusta University, January 2017.
7. M. Nowatkowski, "The In-Processing System at the United States Military Academy," infoUSA 2003 Heartland Free Enterprise Conference, Lincoln, NE, February 2003.
8. M. Nowatkowski, "Modeling Traffic Under Heightened Security Measures at the United States Military Academy," ProModel Solutions Conference, Park City, UT, July 2002.

PROFESSIONAL REPORTS/WHITE PAPERS

1. E. Mitchell, P. Bell, A. Hall, M. Nowatkowski, J. Esquibel, et al., "Jack Voltaic Critical Infrastructure and Public-Private Partnerships" (2019). *ACI Technical Reports*. 42, July 2019. https://digitalcommons.usmlibrary.org/aci_rp/42/
2. M. Nowatkowski, "Certificate Revocation List Distribution in Vehicular Ad Hoc Networks," PhD dissertation, May 2010. <http://hdl.handle.net/1853/33971>
3. M. Nowatkowski, H. Owen, "Cooperative Certificate Revocation List Distribution Methods in VANETs," poster presentation at GA Tech Research and Innovation Conference, February 2010.

4. M. Nowatkowski, J. Buckingham, W. McFadden, T. Trainor, "Simulation Supports Security Plans for Army Football," Published in MORS Phalanx, September 2002.
<https://www.jstor.org/stable/24908717?seq=1>
5. M. Nowatkowski, J. Buckingham, W. McFadden, T. Trainor, "Tackling Safety with Simulation," Published in IIE Solutions, September 2002.
<https://go.gale.com/ps/anonymous?id=GALE%7CA91672005>
6. M. Nowatkowski, "EagleMail: one unit's packet solution," Published in the Army Communicator, Volume 20, Issue 3, 1995.

AWARDS/RECOGNITION

- Presented with an award for one of the top 10 out of over 300 presentations during the Georgia Tech Research and Innovation Conference in 2010.
- Received a Best Presentation award for an invited paper presented at the 2002 ProModel Solutions Conference.

GRANTS AND FUNDING

- National Science Foundation's CyberCorps® Scholarship for Service (NSF SFS), PI, 2021-2025, \$3,265,026.
- National Centers of Academic Excellence in Cybersecurity (NCAE-C) Workforce Development Program, Sub-Award PI, 2020-2023, \$461,396.
- Virtual Institutes for Cyber and Electromagnetic Spectrum Research and Employ (VICEROY), Sub-Award PI, 2021-2024, \$798,914.
- Department of Defense Cyber Scholarship Program Grants (DoD CySP), PI, 2019-2022, total of three awards \$761,806.
- Department of Defense Cyber Scholarship Program Capacity Grants (DoD CySP), PI, 2019-2021, total of two awards \$347,426.
- Office of Naval Research – DURIP (Defense University Research Instrumentation Program), Sub-Award PI, 2020-2022, \$52,118.
- Army Cyber Institute at West Point Critical Infrastructure Security Improvement, Project Director, 2020-2021, \$94,986.
- Augusta University Research Scholarship and Creative Activity Grants Program (RSCA), Co-PI, 2020, \$0.
- Army Cyber Institute at West Point, Intergovernmental Personnel Act, Senior Research Scientist, 2017-2019, \$62,090.
- Augusta University Cyber Institute Interdisciplinary Intramural Awards Program, PI, 2017-2019, \$25,000.
- Savannah River National Lab STEM Scholars at Augusta University, PI, 2017-2019, \$8,000.

SCIENTIFIC AND PROFESSIONAL ORGANIZATION MEMBERSHIPS

- Association for Computing Machinery (ACM)
- Eta Kappa Nu, National Electrical and Computer Engineering Honor Society
- InfraGard - InfraGard is a partnership between the Federal Bureau of Investigation (FBI) and members of the private sector for the protection of U.S. Critical Infrastructure.
- International Information System Security Certification Consortium (ISC)2
- American Radio Relay League, ARRL (Amateur Extra, KO4ASU)
- Military Cyber Professionals Association
- Signal Corps Regimental Association

NATIONAL AND INTERNATIONAL SERVICE

- Paper reviewer and Session chair, International Conference on Cyber Conflict (CyCon), hosted by the NATO Cooperative Cyber Defence Centre of Excellence and the Army Cyber Institute (2016-2018)
- National CyberWatch Center Curriculum Standards Panel for Information Security (2019-2020)
- National CyberWatch Center Curriculum Standards Panel for Network Fundamentals (2019-2020)
- Reviewer for the DARPA Active Cyber Defense Program (June 2013).
- Panel member for the Combating Terrorism Center's NYPD offsite where I discussed cyber threats and their relevance to the Army.
- Current Manuscript Reviewer: Journal of Advances in Engineering Education; Journal of Cybersecurity Education, Research and Practice.
- Past Manuscript Reviewer: IEEE International Conference on Consumer Electronics (2011-2013); 2nd International Conference on Connected Vehicles; Military Operations Research Journal; IEEE Wireless Communications Magazine; 38th Annual IEEE Conference on Local Computer Networks; IEEE Transactions on Vehicular Technology; Security and Communication Networks Journal; Wireless Communications and Mobile Computing Journal; IEEE International Midwest Symposium on Circuits and Systems; IEEE ICC Ad-hoc, Sensor and Mesh networking Symposium; IEEE Vehicular Technology Conference.

UNIVERSITY/COLLEGE SERVICE

Augusta University

- Head of the Cyber Program of Study (2021-present)
- Strategic Enrollment Management Task Force (2021-present)
- STEAMify Board Member and Project Evaluator (2020-present)
- Faculty Advisor to the Augusta University Amateur Radio Club (2019-present)
- University Faculty Workload Task Force, Teaching and Advising Committee (2019-2021)
- Faculty Advisor to the Student Chapter of the Association for Computing Machinery (2017-2018)
- GenCyber Faculty (2017-2019)
- Search and Selection Committee Member (2016-2020)
 - College of Science and Mathematics, Physics Faculty Search (2019-2020)
 - SCCS Faculty Search (2017-2019)
 - SCCS Dean Search (2017-2018)
 - Cyber Institute Network Security Administrator Search (2016-2017)
 - SCCS Security Administrator Search (2019)
 - Cyber Institute Data Scientist Search (2017)
 - Cyber Institute Health Security Search (2017)
 - Savannah River National Lab (SRNL)/SCCS Joint Faculty Search (2017-2018)
 - Office of Innovation Commercialization Technology Transfer Associate Search (2019)
 - GenCyber Student Selection (2017-2018)
 - Department of Defense Cybersecurity Scholarship Student Selection (2017, 2019)
 - Master of Science, Information Security Management Student Selection (2017-2018)
- SCCS Program Director of Cyber Science (2017-2019)
- Past Chair of the School of Computer and Cyber Sciences (SCCS) Faculty Assembly (2017-2019)
- SCCS Faculty Affairs Committee (2017 – 2021)
- SCCS Academic Affairs Committee (2017 – 2019)
- SCCS Executive Committee (2017 – 2019)
- SCCS Facilities Committee (2017)
- Joint Advanced Cyber Warfare Course (JACWC) Academic Presentations, (16 times between 2016-present)

- Panel moderator for “Industry, Academia, Government: Building the Workforce Pipeline,” Cyber Georgia (2016)
- Career Fair Presentations to four local schools (2017-2018)
- Undergraduate Preview Day Cybersecurity Presentations (2017-present)

United States Military Academy

- Officer Representative, Kosciuszko Club (2010-2015)
- Operations Officer, Department of Electrical Engineering and Computer Science (2011-2013)
- Treasurer, West Point Chapter of AFCEA (2000-2003)
- Officer Representative for the USMA Parachute Team (2000-2003)
- Department Academic Counselor (2000-2003, 2010-2015)
- Professional Military Ethic Education advisor (2010-2011)
- Military Leadership (PL300) counselor (5 cadets)

COURSES TAUGHT

Augusta University:

- AIST 4820, Applied Information Systems and Technology Project
- CSCI 2950, Selected Topics: Intro to FPGA
- CSCI 3170, Computer Organization
- CSCI 3531/CYBR 3100, Intro Defensive Cyber Operations
- CSCI 3532/CYBR 3200, Cyber Network Defense and Countermeasures
- CSCI 4280/AIST 3320, TCP/IP Protocol Analysis
- CSCI 4532, Hardware and Embedded Systems
- CSCI 4950, Selected Topics: Hardware Reverse Engineering
- CSCI 3551/AIST 3360, Cellular and Mobile Technology
- INQR 1000, Fundamentals of Academic Inquiry, Dangers and Hazards of Social Media and the Internet

United States Military Academy: (denotes course director)*

- EE301, Fundamentals of Electrical Engineering
- EE302*, Introduction to Electrical Engineering
- EE362*, Introduction to Electronics
- EE375, Computer Architecture
- EE401/402, Capstone Group Advisor
- EE450, Military Electronic Systems
- EE462*, Electronic Design
- EE489*, Advanced Individual Study in Electrical Engineering
- SE370*, Computer Aided Systems Engineering
- SE403*, Systems Design and Engineering Management
- SE481*, Systems Simulation
- SE491*, Applied Research Project in Systems Engineering

FACULTY PREPARATION

- AU Teaching Blended & Online Courses: Unit 1 - Teaching and Technology Toolkit, June 2020.
- Guidelines for Interpreting Data from Course Evaluations, AU Office of Faculty Development and Teaching Excellence, January 2018.
- Making Multiple Choice Tests More Effective, Office of Faculty Development and Teaching Excellence, November 2017.

- Course Design Workshop Series (3 workshops), Office of Faculty Development and Teaching Excellence, November 2016.
- Faculty Development Workshop, Dept. of Electrical Engineering and Computer Science, USMA, July - August 2010.
- Master Teacher Program, United States Military Academy, 2010-2012.
- Semester course “Teaching and Learning in Higher Education,” Georgia Institute of Technology, 2010.
- Faculty Development Workshop, Dept. of Systems Engineering, USMA, July - August 2000.
- Semester course “Educational Technology,” Georgia Institute of Technology, 2000

PROFESSIONAL DEVELOPMENT

- INFA-792 Network Security/Intrusion Detection, May-August 2020, Online course through Dakota State University.
- SCADA Workshop, August 2019, Las Vegas, NV.
- Software Exploitation Workshop, May 2019, St. Paul, MN.
- CSC-492: Reverse Engineering, May-June 2019, Online course through Dakota State University.
- Cyber Education Workshop, April 2019, Santa Fe, NM.
- SEED Workshop, June 2018, Syracuse University, NY.
- S4, ICS Security Conference, January 2018, Miami, FL.
- ICS Cyber Security Conference, October 2017, Atlanta, GA.
- S4, ICS Security Conference, January 2017, Miami, FL.
- ICS Cyber Security Conference, October 2016, Atlanta, GA.
- CybatiWorks Critical Infrastructure and Control System Cybersecurity, On-line, March 2016.
- Industrial Control System Active Defense and Incident Response, SANS ICS515, SANS ICS Training and Summit, Orlando, FL, February 2016.
- Software Exploitation Via Hardware Hacking, Black Hat 2014, Las Vegas, NV, August 2014.
- SCADA Security Training, SANS ICS Training, Houston, TX, July 2014.
- Department of Homeland Security’s Industrial Control Systems Cybersecurity (301), Idaho Falls, ID, May 2014.
- Assessing and Exploiting Control Systems, SANS ICS Training and Summit, Orlando, FL, March 2014.
- Hands-On Hardware Hacking and Reverse Engineering, Joe Grand, Black Hat 2013, Las Vegas, NV, July 2013.
- SANS +S Training Program for the CISSP® Certification Exam, SANS MGT 414, Washington, D.C., June 2013.
- Hacker Techniques, Exploits and Incident Handling, SANS SEC504, Washington, D.C., December 2011.
- Intrusion Detection In-Depth, SANS SEC503, Washington, D.C., July 2011.
- Getting Started with Active X, Park City, UT, July 2002.
- ProModel Advanced Course, Park City, UT, August 2001.
- ProModel Basic Course, Park City, UT, August 2001.