

Dr. Suzanna Schmeelk

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CYBER SECURITY/COMPUTER SCIENCE TEACHING EXPERIENCE

St. Johns University, Cybersecurity/Computer Science Department, Astoria, NY **January 2019 to Present**
Assistant Professor – Cybersecurity

Teaching cybersecurity courses: Network Security, Healthcare Information Security, Fundamentals of Cybersecurity, and Information Security Management. Writing labs, lectures, grants, student assignments in line with industry best practices, standards (e.g. NIST, ISO, etc.), laws, and theoretical computer security concepts. Helping to lead the ABET Accreditation process and NSA Center of Excellence for the multiple cybersecurity tracks and programs. Developing novel information security syllabi related to full ABET, DOD, NSA, and industry best practice knowledge requirements. Developing the infrastructure resources (e.g. system requirements, industry partners, and grant proposals) to improve the state of the art cybersecurity labs and programming assignments.

Cooper Union , Manhattan, NY Adjunct Professor – Computer Science Department	2013 to Present
University of Maryland University College , Adelphi, MD Adjunct Full Professor – Computer Science Department	2010 to 2019
Pace University , Seidenberg School of Computer Sciences, Manhattan, NY Adjunct Professor – Computer Science Department	2016 to 2018
The New School , Parsons School of Design-School of Design Strategies, Manhattan, NY Adjunct Professor – Strategic Design and Management	2013 to 2018
Touro University , Manhattan, NY Adjunct Professor – Graduate School of Education	2015 to 2018
Mentor, New York Academy of Science, NYDOE, & NYCD , Manhattan, NY	2014 to present
Teaching Assistant, Columbia University , Manhattan, NY	2014
Teaching Assistant, New York University , Manhattan, NY	2011 to 2012

For additional detail on courses taught and for a list of instruction and research positions from 1999-2010, visit suzannaschmeelk.com.

PROFESSIONAL INDUSTRY EXPERIENCE

The City of New York, Manhattan, New York **January 2019 to Present**
Senior Security Analyst Consultant

Work directly with key New York City officials to protect the public domain around Manhattan. Work on assessing networks, software, policies, and technologies. Worked to help setup SIEMs, IDS, and analysis city systems for various forms of malware.

Memorial Sloan Kettering Cancer Center, Manhattan, New York **August 2016 to December 2018**
Senior Security Analyst

Work directly with the Vice President and Chief Information Security Officer (CISO) of Memorial Sloan Kettering Cancer Center(s) group to ensure the safety and security of hospital personnel and patients. Our team is predominantly responsible for the overall information security strategy and governance. This includes ensuring that the strategies employed by the risk assessment team (e.g., penetration testing, incident response, etc.) and enterprise-infrastructure team (e.g., data loss prevention, vulnerability scanning) conform to industry best practices and risk-focused solutions. Our team identifies legal security requirements (e.g. HIPPA, PCI, NDA, etc.), develops the organizational-wide security policies, and is responsible for the security training of approximately 20K employees. This position requires a broad background in management, security, computer science, law, and education.

LGS Innovations (formerly LGS Bell Labs Innovations), Florham Park, NJ **Dec 2011 to July 2016**
Network Security Software Engineer

Created new security research and solutions for new and existing products. Performed software module stress tests, versions, and releases. Recorded all issues and problems. Recommended novel solutions. Met release deadlines. Supported, traveled to and presented to customers. *Certificates:* Certified Alcatel-Lucent Network Routing Specialist I (NRSI). 2012. IdaPro Training. 2014. Alcatel-Lucent Mobile Gateways for LTE Evolved Packet Core Training 2015. Alcatel-Lucent Certificate for Media Gateway Controller 2013. Alcatel-Lucent Certificates for Convergent Network Management Center Operation and System Administration 2013. *Deep understanding of security related:* Virtual Machine concepts. Routing concepts and defense solutions. Malware concepts and defense solutions. Linux concepts and defense solutions. Microsoft concepts and defense solutions. WIFI concepts and defense solutions. Android concepts and defense solutions. Protocols: DHCP, TCP, UDP, IP, HTTP, FTP, GTP, 802.11 Languages: Python, Perl, C, C++, Java, C#, OCaml, HTTP, JavaScript, Node.js, PHP, Assembly and Bash Shell Scripting. *Recipient of multiple 'Star Awards' given on demonstration of excellent technical skills. Rigorous government contractor background checks.*

Alcatel-Lucent Inc., Florham Park, NJ **Jan 2012 to 2013**
Network Security Software Engineer

Created new security research and solutions for new and existing products. Performed stress tests of software modules, version and releases. Recorded all issues and problems. Recommended novel solutions. Met release deadlines. Supported, traveled to and presented to customers at locations.

Internships **2001-2011**

eBay, San Jose, California Developed a black-box open source cross sight scripting tool and a prototype for flash analysis software.

R&D Engineer, TRUST Center, University of California at Berkeley Supported Dean of Engineering and Team for Research of Ubiquitous Secure Technology (TRUST) Center. Instituted a taxonomy-based security test bed for control system research.

Yahoo!, Sunnyvale, California In Software Quality Assurance: performed static analysis of software modules using Coverity, developed Python based modules for Packet Construction Set (PCS). Invited to share findings by giving talks in Sunnyvale, CA, Brisbane, Australia and University of Auckland in New Zealand and publishing the work in IEEE-ITNG.

Paradyne, Red Bank, New Jersey Supported the R&D DSL team on their new board testing environment.

Battelle, Charlottesville, Virginia Developed XML schema for OCR'd documents.

EDUCATION

Doctor of Professional Studies in Computing GPA 3.9 **(Expected) 2020**
Pace University, Pleasantville, New York

Ed.D., Mathematics Education, GPA 3.8	2010
Rutgers University, New Brunswick NJ	
MS, Cyber Security GPA 3.667	2019
University of Maryland Global Campus, Adelphi, MD	
MS, Data Visualization GPA 3.5	2019
Parsons-The New School for Design, Manhattan, NY	
MS, Executive Management of Technology GPA 3.5	2014
New York University, New York NY	
MS, Computer Science, GPA 3.51	2004
William and Mary, Williamsburg VA	
BSc, Computer Science, Minor Mathematics, GPA 3.33	2001
University of Richmond, Richmond VA	

ACADEMIC CERTIFICATIONS

Secure Software Development	(Expected) 2020
Carnegie Mellon University <i>Curriculum: Java Programming</i>	
Certificate, Advanced Computer Security	2013
Stanford University, Palo Alto, CA <i>Curriculum: XACS130 Using Cryptography Correctly, XACS131 Writing Secure Code, XACS132 Security Protocols, XACS215 Mobile Security, XACS133 Exploiting and Protecting Web Applications, XACS101 Software Security Fundamentals</i>	
Certificate, Cyber Security, GPA 3.52	2012
New York University/Polytechnic Institute, New York, NY <i>Curriculum/Coursework: CS6803 Information System Security Engineering and Management, CS6573 Penetration Testing and Vulnerability Analysis, CS6813 Information Security and Privacy, CS9093 Biometrics, CS6823 Network Security</i>	

SANS TRAINING

DEV522: *Defending Web Applications Security Essentials* (2018); MGT433: *How to Build, Maintain, and Measure a Mature Security Awareness Program* (2018); DFIR NetWars Tournament (2018); DEV531: *Defending Mobile Applications Security Essentials* (2017); DEV541: *Secure Coding in Java/JEE: Developing Defensible Applications* (2017); *Cyber Defense NetWars Tournament* (2017)

PATENTS

1. Suzanna Schmeelk. Application Number 62/347,706. Filed 06/09/2016. Patent Approved 06/2019
Description. A technique for protocol analysis.
2. Suzanna Schmeelk and Sneha Phadke 08/2011. Open Source Open Redirect Tool. eBay Submission.

PUBLICATIONS

Regularly published in journals and books, a presenter at conferences and meetings globally and an invited lecturer. Area of expertise and focus have included:

- Technology Innovation in E-Government
- Standardizing Source Code Security Auditing
- Machine Learning
- Defending Android Applications Availability
- Android Security, malware analyses. Public key cryptography
- Learning Java in a NYC Immigrant Engineer Retraining Program
- Malware-Specific Static Analysis Techniques
- Image Authenticity Implementing Principal Component Analysis (PCA)
- Towards a Unified Fault Detection Benchmark
- Managing Post Development Fault Removal

- Source Code Security Audit of the Apache Traffic Server
- Design of a Secure E911 System

For a full detailed list of Publications, Journal and Book Chapters, Conferences, Invited Lectures and Posters, go to suzannaschmeelk.com.

HONORS AND FELLOWSHIPS

A recipient of numerous honors and fellowships; highlights include:

1. National Institute of Standards (NIST) Invited Research Associate. Bug Framework. 2018.
2. Kappa Delta Pi Convocation. The International Honor Society in Education. Invited Speaker. 2018.
3. Rockefeller University, Manhattan, New York. Invited Panelist. 2017.
4. Graduate Women in Science (GWIS). National Committee. Nominating Committee. 2017.
5. Heidelberg Laureate Forum Participant. By Invitation Only. Heidelberg, Germany. 2016.
6. Public-Key Cryptography Dagstuhl Seminar 16371. Schloss Dagstuhl Leibniz-Zentrum für Informatik. By invitation only. Germany. 2016
7. Graduate Women in Science (GWIS). New York/ New Jersey Chapter President. (2012-2016).
8. QCon Crew Selection <http://www.qconferences.com>: QCon New York (2013, 2014, 2017), HTML5 New York (2011), QCon London (2011), QCon San Francisco (2011), QCon London (2010)
9. Fellowship. StartingBloc. LA Institute. 2012.
10. SC Magazine. Top-5 Influential IT Security Thinkers of 2011 Selection. December 2011.
11. NSF "Faces of Tomorrow" Fellowship to Nat. Sci. Foundation Headquarters. Washington, DC 2010.

A complete list of Honors and Fellowships can be found at www.suzannaschmeelk.com.