

John J. Seymour, III

seymour1@umbc.edu

410-350-4877

RESEARCH INTERESTS

Malware Analysis, Machine Learning, Quantum Computing

EDUCATION

University of Maryland, Baltimore County (UMBC)

Ph.D. in Computer Science (Expected Spring 2017)

Graduate GPA: 4.0/4.0

M.S. in Computer Science (Fall 2014)

Thesis Title: Quantum Classification of Malware

B.S./B.S./B.A. *cum laude* in Computer Science/Mathematics/Philosophy (Fall 2011)

Certificate of General Honors

Undergraduate GPA: 3.70/4.00

NOTABLE PUBLICATIONS

John Seymour and Charles Nicholas, ““Quantum” Classification of Malware”, to be presented by John Seymour at DEFCON 23, August 2015.

John Seymour and Charles Nicholas, “Overgeneralization in Malware Classification”, Malware Technical Exchange Meeting, June 2015. (poster session)

Charles Nicholas, Robert Brandon, Joshua Domangue, Andrew Halle-meyer, Peter Olsen, Alison Pfannenstien and John Seymour, “The Exploit Kit Club”, Malware Technical Exchange Meeting, July 22-24, 2014, Albuquerque, NM. (poster session)

Full list of publications available on request

WORK EXPERIENCE

Army Research Lab

Student Intern, Summer 2014

- Researched and presented skew removal techniques for the D-Wave SR10V6 chip using satisfiability problems.
- Demonstrated and reduced bias using statistical techniques.
- Utilized Python, ToQ, and QSage/Blackbox.

University of Maryland, Baltimore County

Graduate Research Assistant and

Graduate Teaching Assistant, January 2012-June 2015

- Created Bash Scripts and Cron jobs to scrape urlquery.net for links to websites redirecting to exploit kits.
- Integrated VirtualBox, Wireshark, Bash and Python scripts, and Suricata to intercept and record all traffic to exploit kit landing pages.
- Teaching Assistant for Network Security, Computer Security, Cryptography, Automata Theory, and Introduction to Object-Oriented Programming.
- Introduced students to Metasploit/Kali Linux and theoretical aspects of cybersecurity.
- Designed, tested, deployed, and maintained the SecurityEmpire website and game.
- Administered Mercurial repository, managed Red Hat server with Apache HTTPD to host project, and developed server-side code using PHP and MySQL.
- Managed undergraduate graphic designers and programmers and assisted with HTML, CSS, and Javascript with AJAX.

Pyxis Engineering/Applied Signals Technology

Associate Engineer, June 2009 - January 2010

- Designed, tested, and deployed a Training Request Management System.
- Synthesized Java, Spring Web MVC framework, HTML, CSS, Javascript, JUnit, MySQL, Apache Maven, and Apache Tomcat.
- Utilized Agile development process.

STUDY ABROAD

University of Bristol, UK, Spring 2010

Applied and was accepted into University of Bristol's Mathematics department through direct enrollment. Successfully completed maximum number of credit points (60) of senior course equivalents, including Computational Complexity, Quantum Mechanics, Mathematical Logic, and Algebraic Number Theory.

HONORS AND AWARDS

President's List (4.0 GPA): Spring-Summer 2009, Summer 2010-Present
Eagle Scout, Boy Scouts of America