

John J. Seymour, III

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RESEARCH INTERESTS: Machine Learning, Malware Analysis

WORK EXPERIENCE

ZeroFOX

Senior Data Scientist, September 2016 - Present

- Piloted ZeroFOX FoxThreats program for threat hunting on social media.
- Interviewed and mentored new hires.
- Conveyed complex machine learning concepts to press and conference attendees.

Data Scientist, September 2015 - September 2016

- Led development of SNAP_R, a machine learning based pen-testing tool to automate generation of individually tailored phishing messages on Twitter.
- Developed solution to detect money-flipping scam posts on Instagram.
- Created high-quality datasets for product offerings.

CyberPoint International, LLC

Student Intern, Summer 2015

- Recreated top Kaggle Malware Competition models and compared to models in the CyberPoint Machine Learning Model Training Pipeline.
- Added the Python xgboost library and the t-SNE dimensionality reduction algorithm to the Model Training Pipeline.
- Created multiple Java programs with various algorithms and data structures for use in the DARPA Space/Time Analysis for Cybersecurity project.

Army Research Lab

Student Intern, Summer 2014

- Transformed satisfiability problems into problems the D-Wave SR10V6 could solve using ToQ, a D-Wave proprietary software.
- Demonstrated and reduced bias in D-Wave chips using Python, error correcting codes, and statistical techniques.

University of Maryland, Baltimore County

Graduate Research Assistant, UMBC DREAM Lab, January 2014 - May 2015

- Scraped urlquery.net for links to websites redirecting to exploit kits.
- Intercepted and recorded traffic to exploit kit landing pages for use in data analysis.

Graduate Teaching Assistant, August 2012 - December 2013

- Teaching Assistant for Network Security, Computer Security, Cryptography, Automata Theory, and Introduction to Object-Oriented Programming.
- Taught Metasploit, Kali Linux, and infosec theory to undergraduate students.

Graduate Research Assistant, UMBC Cyber Defense Lab, January 2012 - August 2013

- Designed, tested, deployed, and maintained LAMP stack to host government-funded gamification initiative for teaching high school students basic concepts in infosec.

EDUCATION

University of Maryland, Baltimore County (UMBC)

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

For list of publications, see <https://sites.google.com/site/jjseymour3/publications>

Graduate GPA: 4.0/4.0

M.S. in Computer Science (Fall 2014)

Thesis Title: Quantum Classification of Malware

Presented at DEFCON23, Summer 2015

B.S. *cum laude* in Computer Science (Fall 2011)

B.S. *cum laude* in Mathematics (Fall 2011)

B.A. *cum laude* in Philosophy (Fall 2011)

Certificate of General Honors

Undergraduate GPA: 3.70/4.00