

# John J. Seymour, III

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<https://github.com/seymour1/>

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RESEARCH INTERESTS	Machine Learning, Malware Analysis, Quantum Computing
PROFICIENCIES	bash, python, git, sklearn, nltk, tweepy, boto, matplotlib
COMFORTABLE WITH	xgboost, seaborn, docker, spacy, gcloud, apache spark, mysql

## WORK EXPERIENCE

### ZeroFOX, Inc

*Senior Data Scientist*, September 2016 - Present

- Piloted ZeroFOX FoxThreats program for threat hunting on social media
- Interviewed and mentored new hires
- Co-created classifier to find spammers and off-platform redirects for a social networking site

*Data Scientist*, September 2015 - September 2016

- Drove development and sales through internal data science and information security research
- Demonstrated thought leadership at top tier information security conferences (Black Hat USA, DEF CON, BSidesLV, SecTor)
- Led development of SNAP\_R, a pen-testing tool using machine learning to automate generation of individually tailored phishing messages on social media
- Developed solution to detect money-flipping scam posts on Instagram
- Created datasets for future product offerings using Mechanical Turk/Amazon S3
- Research covered by Forbes, The Atlantic, BBC Technology, among others

### University of Maryland, Baltimore County

*Graduate Research Assistant, UMBC DREAM Lab*, January 2014 - May 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.
- Published multiple papers on Exploit Kit classification and overgeneralization in malware classification.

*Graduate Teaching Assistant*, August 2012 - December 2013

- 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.

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

- 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.

## 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