

MICHAEL RODRIGUES

EDUCATION

NORTHEASTERN UNIVERSITY, Boston, MA September 2016 – May 2018

Master of Science in Information Assurance and Cybersecurity

Honors: National Science Foundation (NSF) Scholarship for Service (SFS)

GPA: 4.00 / 4.00

NORTHEASTERN UNIVERSITY, Boston, MA September 2011 – May 2016

Bachelor of Science in Computer Science and Information Science (Dual Major)

Honors: Dean's List, National Science Foundation (NSF) Scholarship for Service (SFS)

GPA: 3.77 / 4.00

Relevant Coursework: Computer System Security; Applied Cryptography; Network Security Practices; Research Project in National Information Security; Systems and Networks; Cyber Law; Information System Forensics; Security Risk Management and Assessment; Algorithms System Design and Development; Database Design

Additional Courses: Introduction to Blockchain [MITRE Institute], Web Accessibility [U1 Group], Introduction to Security and Resilience [Northeastern University Lifelong Learning] MongoDB M101J [10gen], MongoDB M101JS [10gen], CyberAces Online Training Program [Fall 2013] – 3rd in Rhode Island, top 14% overall

TECHNICAL SKILLS

Languages: JavaScript (NodeJS, Vue, AngularJS), Python, HTML/CSS, Swift, PHP, C, Java, Perl
Systems: macOS, Microsoft Windows, Linux (Kali, Ubuntu, CentOS/RHEL), iOS, Android
Databases: MongoDB, MySQL, Oracle, Elasticsearch
Applications: IDEs (IntelliJ, Eclipse, XCode), Source Control (Git, Subversion), GIMP, Stash, Jira, BitBucket, Bamboo, Jenkins, Confluence

INDEPENDENT TECHICAL PROJECTS

Node Modules:

json-2-csv	April 2014 - Present
<ul style="list-style-type: none">Converts data between JSON and CSV formats.Over 700,000 downloads per month.	
tag-cloud	January 2015 - Present
<ul style="list-style-type: none">Generates an HTML word cloud that can be customized with CSS styling.	
memo-cache	March 2015 - Present
<ul style="list-style-type: none">Caching and function memoization library.	
doc-path	April 2015 - Present
<ul style="list-style-type: none">Document path manipulation library to evaluate and set values for key paths.Over 1 million downloads per month.	
objecdiff	June 2016 - Present
<ul style="list-style-type: none">Object difference comparison library for NodeJS.	
htpasswd-mgr	October 2018 - Present
<ul style="list-style-type: none">Provides a programmatic interface to manipulate HTPasswd files via NodeJS.	

deeks

November 2018 - Present

- Deep key enumeration across an object or an array of objects.
- Over 1 million downloads per month.

Website/Server Development and Management

SignatureLimoCompany.com

March 2014 - Present

- Secure server configuration, patching, domain management, and DevOps configuration.
- MongoDB/ExpressJS/NodeJS server-side REST API
- AngularJS front-end website
- Averages over 30 client quote inquiries per month

Course Projects:

Research Project in National Information Security

September 2017 - December 2017

- Developed a new Google Chrome Extension to combat phishing attacks.
- Analyzed phishing emails, existing technologies, and shortcomings in current technical controls in partnership with the Johns Hopkins Applied Physics Laboratory (APL).

WORK EXPERIENCE

Senior Web Application Developer

MITRE Corporation (Bedford, MA)

June 2018 - Present

- Led development effort for Elasticsearch data loading processes for an application re-design and re-architected the project to improve maintainability and efficiency while meeting the project requirements
- Mentored Undergraduate Co-op during onboarding process and through a moderate sized Co-op project
- Led the hiring process for Northeastern Co-ops and Summer Interns from phone-screens through to the hiring decision
- Self-taught Swift while maintaining and adding features to the iOS version of MITRE@Work, MITRE's most commonly used corporate mobile application with over 6,000 users
- Led development of backend feature additions to MITRE@Work for a recent request from upper management
- Maintained and enhanced existing MEAN stack web applications as well as new Vue front-end applications
- Identified and supported the implementation of technical controls to improve the cybersecurity posture of new and existing applications
- Implemented an isolated set of virtual machines which are non-networked in order to allow for application security testing with conventional tools and techniques
- Received multiple corporate awards for technical diligence on an Elasticsearch architecture re-design for which I led development efforts on, for my contributions to the new corporate search platform, and for my development efforts on recent MITRE@Work backend and iOS development work.

Web Application Developer Co-op/Graduate Intern

MITRE Corporation (Bedford, MA)

January 2014 – January 2018

- Contributed to the development of a new Organization Page web application used by all of MITRE and was the point of contact for the application's cutover
- Developed a team dashboard application using web sockets to systematically check the status of our applications and alert team members of any identified issues
- Consulted on organizational web application penetration testing and approaches to automated application security testing
- Lead the development and requirements elicitation process for two new web applications: an external wireless network passcode service and an RSS feed management portal
- Automated the monthly usage report generation processes for the MITRE@Work mobile application via a Python script
- Developed a new NodeJS campaign service to recommend skill tags to employees using the MEAN stack
- Maintained, enhanced, and rewrote existing applications to abstract the code base, increase efficiency, and convert them to use updated libraries such as AngularJS
- Led daily standup meetings for team of six to nine engineers

Symmetrix Systems Integration Engineer Co-op

EMC Corporation (Franklin, MA)

January 2013 – August 2013

- Developed four websites, one of which is a firmware repository website used internationally to manage drive firmware
- Rewrote various system and test scripts that were previously outdated, eliminating up to 500 lines of unnecessary code in one script while still adding new features
- Initiated and implemented a new approach to how tests are started, monitored, and conducted to increase efficiency and aid in system test automation
- Created and maintained a drive error logging MongoDB database for all 21 systems in the lab using an intricate Python error collection script and Symmetrix Fibre Channel API

Naval Research Enterprise Intern/Science and Engineering Apprenticeship Intern

Naval Undersea Warfare Center (Newport, RI)

June 2011 – July 2012

- Developed and updated GUI program that sends and receives commands via network interfaces
- Supervised technical testing performed by contractors
- Designed functionality for a PIC32 Processor enabling data transfer via Ethernet & USB

HONORS AND AWARDS

MITRE Corporation:

- Spark Award – July 2016 – Identifying Root Cause of Corporate-Wide Authentication Issue
- Spark Award – July 2017 – Identification and Resolution of a Major Corporate Application Issue
- Spark Award – November 2018 – Identification of a New Corporate Search Architecture
- Catalyst Award – December 2018 – Corporate Search Architecture Development Leadership
- Catalyst Award – February 2019 – MITRE@Work Mobile Backend Technical Leadership
- Catalyst Award – February 2019 – MITRE@Work New Feature Development Contributions

Northeastern University:

- Graduate and Undergraduate Recipient of National Science Foundation (NSF) Scholarship for Service (SFS)
- Undergraduate Dean's List

ORGANIZATIONS

MITRE NextUp

September 2015 – Present

- I am a member of the NextUp organization at MITRE, which provides networking, mentoring, and professional development opportunities for recent graduates and young professionals.

INTERESTS

Photography, Cars, Software and Network Security, Programming, Machine Learning, Artificial Intelligence, Computer Hardware, PC Overclocking, RC Cars