ERIC NUNES

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SUMMARY

Computer Engineering PhD with 4 years' experience in research and development of data analysis tools. Hands-on experience with Python, R, SQL, C++, and MATLAB. Knowledgeable in processes and tools related to Big Data and Data Science.

**EDUCATION** 

PhD in Computer Engineering May, 2018

Arizona State University, AZ GPA: 4.0

Master of Science in Electrical Engineering

Syracuse University, NY

**Bachelor of Science in Electronics and Telecommunication** 

University of Mumbai, India

June, 2010

May, 2012

Contact: 315-439-3089

#### TECHNICAL SKILLS

• **Machine Learning**: Classification, regression, clustering, anomaly detection, feature engineering, online learning, Experience with deep learning.

- **Programming Languages**: Python, MATLAB, C++, HTML, and LaTeX. Familiar with C, R.
- Libraries: scikit-learn, ElasticSearch, Weka, Pandas, Theano, Caffe.
- Databases: SQL, PostgreSQL, MongoDB.
- Big Data and Cloud: Splunk, Spark, Familiar with Big Data Processing Platforms: Hadoop and Cloud tools: Amazon S3.

## KEY PROFESSIONAL AND RESEARCH EXPERIENCE

**Data Scientist / Consultant**, Cyber Reconnaissance Inc. (CYR3CON)

June 2016 - May 2018

Tools: Python, PostgreSQL, MongoDB, Spark.

- Designed a system to store and mine data from darknet markets and forums.
- Leading a team of developers and analysts to build tools/products for security applications. In particular,
  - Leveraging threat intelligence to build learning models for predicting likelihood of exploitation of a vulnerability (vulnerability prioritization),
  - Providing intelligence on Mobile threats (both Android and iOS applications),
  - Active threat assessment on client systems,
  - Named-entity recognition (to determine vulnerable software) using RNN/LSTM seq2seq models,
  - Building classification models to identity malicious web scripts (PHP/HTML).
  - Assist with the expansion of CYR3CON future product features as well as the management and development of growing community of users, guiding/assisting them in trials and integrating with client systems.

### Security Automation Intern (Data Science), PayPal

May 2017- August 2017

Tools: Python, Splunk, Spark.

- Analyzed user login activity using Akamai logs and enriched it with other data feeds such as threat intelligence, merchant data, credential dumps.
- Implemented operational Anomaly detection models to detect Account Takeover (ATO) attacks to raise alerts.
- Visualized ATO attacks in real time on a dashboard in Splunk to aid risk to flag fraudulent transactions.

### Graduate Research Assistant, CySIS Lab, Arizona State University

August 2014 - May 2018

Tools: Python, PostgreSQL, Prolog, tcpflow.

- <u>Modeling of threat actors:</u> Identifying cyber adversaries using argumentation and machine learning models (knowledge base: 10 million attacks).
- <u>Proactive Cyber-Threat Intelligence</u>: Built a system to crawl and parse the Darknet (markets and forums) to extract cyber threat intelligence including zero-day exploits using data mining and machine learning techniques. Identifying targeted software through disclosed vulnerabilities on Darkweb.
- <u>Malware task identification:</u> Identifying the tasks that a piece of malware was designed to perform on the system (adversarial intent) using cognitive learning models.

#### PATENTS / INVENTION DISCLOSURES

- Systems and Methods for Third Party Risk Assessment, Submitted, 2018.
- Systems and Methods for predicting which software vulnerabilities will be exploited by malicious hackers to prioritize for Patching, Submitted, 2017.
- Systems and Methods for Data Driven Malware Task Identification. Submitted, 2016.
- Intelligent darkweb crawling infrastructure for cyber threat intelligence collection. Licensed to CYR3CON, 2016.

# REFERRED PUBLICATIONS

https://efnunes.github.io/publication.html