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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** **May, 2012**

Syracuse University, NY

**Bachelor of Science in Electronics and Telecommunication** **June, 2010**

University of Mumbai, India

##### 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.

* Modeling of threat actors: Identifying cyber adversaries using argumentation and machine learning models (knowledge base: 10 million attacks).
* Proactive Cyber-Threat Intelligence: 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.
* Malware task identification: 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>