Jialin Xu

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Information Networking Institute | Carnegie Mellon University

EDUCATION

2016-2017 **Carnegie Mellon University**, *Master of Science in Information Technology*, **GPA 3.72**, *Pittsburgh, PA*.
2016-2018 **University of Hyogo**, *Master of Applied Informatics*, **GPA 4.0**, *Kobe, Japan*.
2011-2015 **Beijing University of Posts and Telecommunications**, *Bachelor of Engineering, Beijing, China*.

INTERNSHIP EXPERIENCE

Aug.2016 **Security Audit Intern**, Rakuten, Tokyo, Japan.
- Accomplished penetration live tests on Rakuten's "Food Avenue" project.
- Conducted live tests aimed at the OWASP top 10 web vulnerabilities.
- Applied daily security injection, XSS and access control auditing on Rakuten's websites.

Apr.2015- **Software Engineer Intern**, Rockchips Electronics CO., Ltd, Beijing, China.
Feb.2016
- Developed a module application to the customer information on iOS device.
- Built a parser model based on RapidXml library to read pre-defined format data.
- Conducted data analysis on customers' preference survey results using **R**.

Sep.2014- **Data Analysis Research Intern**, University of Hyogo, Kobe, Japan.
Dec.2014
- Created a model to analyze Data Breach Incidents using **R** from longitudinal, geographical angle.
- Conducted simulation of privacy negotiation process and optimized the rate of agreements from 47.56% to 86.96%.
- Reclassified Android threat and proposed mitigation strategies.

Jun.2013- **Research Intern**, Tsinghua University, Beijing, China.
Sep.2014
- Developed a prototype based on TI Davinci DM6467 to achieve recognition of lane, guide board and pedestrian.
- Enhanced dynamic detection algorithm focusing on pedestrians and automobiles from 52% to 63%.
- Simplified the design of hardware development and ameliorated the stability of prototype in real applications.

PROJECTS

May.2017- **Similarity Structure Pattern Analysis**, Machine Learning.
Present
- Performed statistical analysis on fake sites datasets from National Police Agency.
- Extracted similar structural pattern from sugar chain using extended center star algorithm using **Python**.
- Applied tree kernel k-means algorithm to classify the DOM trees of phishing site pages.

Mar.2017- **High-performance Multi-tier Twitter Analytics Web Service**, Cloud Computing.
May.2017
- Deployed high performance, fault-tolerant web service on AWS, implemented RESTful API structure to query data from 1TB raw tweets by MapReduce.
- Implemented data schema in MySQL and HBase, optimized database to serve different hybrid requests.
- Enhanced live performance by front-end caching, data replication and employing load balancers.

Mar.2017- **Ethical Hacking Windows OS**, Penetration Hack.
Apr.2017
- Accomplished reverse attack using Metasploit framework.
- Conducted ethical keyboard, webcam and file management hacking on Windows 7 and Windows 10.
- Achieved UAC bypassing taking advantage of Powershell Empire to obtain the hashed password value.

Mar.2017- **Online Code Compiler based on Docker Container and AWS**, Cloud Computing.
Apr.2017
- Constructed compiler images for Docker to build containers and servers to serve requests.
- Built proxy server using Python Flask, which forwards requests to Docker container then responds to users.
- Utilized AWS EC2 Container Service on container pool and load balancer to ensure high performance.

SKILLS

Programming Python, Java, HTML/CSS, R, LabVIEW, LaTeX
Tools Git, Maven, Kinect, Intellij IDEA, PyCharm, Hadoop, AWS
Languages English, Chinese, Japanese
Coursework Cloud Computing, Machine Learning, Web Application Development, Computer Networks, Applied Informatics, Data Structure, Interactive Web Design, Human-Computer Interaction