LINH CAO

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Verizon Media (formerly Oath Inc.)

1908 S. First Street · Champaign, Illinois 61820

EDUCATION

University of Illinois at Urbana-Champaign (UIUC), IL, U.S.　　　　*2016 - 2018*

School of Information Sciences (iSchool)

Master of Science (MSc) in Library and Information Science

Foreign Trade University (FTU), Hanoi, Vietnam　　　　*2011 - 2015*

Bachelor of Business Administration (BBA)

WORK EXPERIENCE

Software Dev Engineer I　　　　Jan 2019 - present

Verizon Media (formerly Oath Inc.)

· Implement and develop a monitoring tool to support a new data pipeline, which is used to extract, transform, and load (ETL) millions of data records a day.

· Support production pipelines and ensure all steps of production run smoothly and efficiently

Technical Programmer Intern　　　　May 2018 - Aug 2018

Verizon Media (formerly Oath Inc.)

Implemented Open BGP Monitoring Protocol (OpenBMP) for measuring and securing Border Gateway Protocol (BGP) inter-data-center network traffic.

· Implemented OpenBMP to track million Routing Information Base (RIB) dumps and Update dumps for BGP. [Apache Kafka, Zookeeper, Apache Tomcat, MySQL MariaDB]

Measured IPv6 adoption rate using traffics from Oath Content Distribution Network (CDN) to understand, plan, and optimize Oath Network.

· Calculated total served Bytes, total requests, total connections, and total IP addresses from terabytes of data. [Apache Pig]

· Visualized global IPv6 adoption rate using choropleth map. [Folium Python Library].

· Submitted a paper named **On the Adoption of IPv6** to Tech Pulse, an Oath internal conference

Data Analytics Practicum　　　　Aug 2017 - Dec 2017

Illinois Leadership Center (ILC), UIUC

Conducted assessment reports and library reports

· Analyzed evaluation data from four ILC programs

· Conducted monthly query reports of ILC Library usage [Koha Library Software, MySQL]

Security Operation Intern　　　　Jun 2017 - Aug 2017

National Center for Supercomputing Applications (NCSA), UIUC

Built a distributed log platform to propagate attack data to participating sites in real time

· Automated deployment of an SSH key logger honeypot in participating sites [Python, Ansible playbook]

· Built an Extract, Transform, and Load data streaming pipeline to measure and distribute network and host authentication logs [Apache Kafka]

· Distributed security logs using publish-subscribe and gossip-based peer-to-peer messaging [ZeroMQ Python Library]

Graduate Teaching Assistant   2016 - 2018
Help Desk, Instructional Tech & Design Office, iSchool, UIUC

· Designed and integrated a checkout interface for 10 users, serving hundreds of students, faculty, and staff within iSchool.
· Produced technical documents for faculty staff on Cloud Computing & Storage, UNIX, and MySQL.
· Supported remote or in-person students and faculty for technical issues during online sessions.
· Guided guest speakers and students using the Blackboard Collaborate Ultra tool.

RESEARCH PROJECTS

University of Illinois at Urbana-Champaign   2017
Evaluating an Automatic Data Extraction Tool for Evidence Synthesis Through Real-life Case Studies

Evaluated accuracy of RobotReviewer, a medical data extraction software using natural language processing.
· Extracted entities and sentiments from three novices' extraction [Python, NLTK Python Library]
· Compared the similarity between these extractions, a review published by the Cochrance Oral Health Group, vs. RobotReviewer [Jaccard similarity metric]

University of Illinois at Urbana-Champaign   2016
Information Assurance Project

Analyzed hidden risks of authentication methods: password, biometrics, and physical authentication keys.
· Surveyed 35 participants on the three authentication methods
· Analyzed issues and usages of the three authentication methods for participants

POSTER PRESENTATIONS

· Withers, A., Azoff, J., Marsteller, J., Filus, S., & **Cao, L.**(2017). *Building a Real-time Distributed Intelligence Feed Network.* Digital Infrastructures for Research (DI4R) Conference, Brussels, Belgium.
· Withers, A., Azoff, J., Marsteller, J., Filus, S., & **Cao, L.**(2017). *Building a Real-time Distributed Intelligence Feed Network.* iSchool Research Showcase, Urbana-Champaign, IL, U.S.
· **Cao, L.** (2017). *Library Usage Reports at Illinois Leadership Center Library.* iSchool Research Showcase, Urbana-Champaign, IL, U.S.
· **Cao, L.** (2017). *Library Usage Reports at Illinois Leadership Center Library.* Illinois Data Science Day, Urbana-Champaign, IL, U.S.
· Hoang, L., **Cao, L.**, Guan, Y., Cheng, Y., & Schneider, J. (2017). *Evaluating an automatic data extraction tool for evidence synthesis through real-life case studies.* iSchool Research Showcase, Urbana-Champaign, IL, U.S.

AWARDS

USENIX Enigma Diversity Grant Award (2018)

Dorothy C. McAlister Endowment Travel Support (2018)