

# Linh Cao

March 4, 2019

## Education

2016–2018	<b>University of Illinois at Urbana-Champaign (UIUC), IL, U.S.</b> <i>Master of Science (MSc) in Library and Information Science · School of Information Sciences (iSchool)</i>
2011–2015	<b>Foreign Trade University (FTU), Hanoi, Viet Nam</b> <i>Bachelor of Business Administration (BBA)</i>

## Technical Skills

Programming Languages	Python, Bash Shell
Data Analysis	MySQL, R, SPSS

## Research Experience

2017	<b>University of Illinois at Urbana-Champaign · <i>Evaluating an automatic data extraction tool for evidence synthesis through real-life case studies</i></b> Evaluated accuracy of RobotReviewer, a medical data extraction software using natural language processing. <ul style="list-style-type: none"><li>· Extracted entities and sentiments from three novices' extraction [Python, NLTK Python Library]</li><li>· Compared the similarity between these extractions, a review published by the Cochrane Oral Health Group vs. RobotReviewer [Jaccard similarity metric]</li></ul>
2016	<b>University of Illinois at Urbana-Champaign · <i>Information Assurance Project</i></b> Analyzed hidden risks of authentication methods: password, biometrics, and physical authentication keys. <ul style="list-style-type: none"><li>· Surveyed 35 participants on the three authentication methods</li><li>· Analyzed issues and usages of the three authentication methods for participants</li></ul>

## Work Experience

2019-present	<p><i>Software Dev Engineer I</i> · <b>Oath Inc.</b></p> <p>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.</p> <ul style="list-style-type: none"> <li>· Support production pipelines and ensure all steps of production run smoothly and efficiently</li> </ul>
2018	<p><i>Technical Programmer Intern</i> · <b>Oath Inc.</b></p> <p>Implemented monitoring tools (OpenBMP) for measuring and securing Border Gateway Protocol (BGP) inter-data-center network traffic.</p> <ul style="list-style-type: none"> <li>· Measured IPv6 Adoption Rate using traffics from Oath Content Distribution Network (CDN) to understand, plan, and optimize Oath Network.</li> <li>· Implemented Open BGP Monitoring Protocol (OpenBMP) to track million Routing Information Base dumps and Update dumps for BGP. [Apache Kafka, Zookeeper, Apache Tomcat, MySQL MariaDB]</li> <li>· Calculated Total Served Bytes, Total Requests, Total Connections, and Total IP addresses from terabytes of data. [Apache Pig]</li> <li>· Measured IPv6 adoption rate by dividing total number of IPv6 addresses to total number of IP addresses. [Panda Python library]</li> <li>· Visualized global IPv6 adoption rate via choropleth map. [Folium Python Library].</li> </ul>
2017	<p><i>Security Operation Intern</i> · <b>National Center for Supercomputing Applications (NCSA), UIUC</b></p> <p>Built a distributed log platform to propagate attack data to participating sites in real time</p> <ul style="list-style-type: none"> <li>· Automated deployment of an SSH key logger honeypot in participating sites [Python, Ansible playbook]</li> <li>· Built an Extract, Transform, and Load data streaming pipeline to measure and distribute network and host authentication logs [Apache Kafka]</li> <li>· Distributed security logs using pub-sub and gossip-based peer-to-peer messaging [ZeroMQ Python Library]</li> </ul>
2017	<p><i>Data Analytics Practicum</i> · <b>Illinois Leadership Center (ILC), UIUC</b></p> <p>Conducted assessment reports and library reports</p> <ul style="list-style-type: none"> <li>· Analyzed evaluation data from four ILC programs</li> <li>· Conducted monthly query reports of ILC Library Usages [Koha Library Software, MySQL]</li> </ul>
2016-2018	<p><i>Graduate Teaching Assistant</i> · <b>Help Desk, Instructional Tech &amp; Design Office, iSchool, UIUC</b></p> <p>Provided supports for iSchool students, faculty, and staffs</p> <ul style="list-style-type: none"> <li>· Produced technical documents for faculty staffs on Cloud Computing &amp; Storage, UNIX, and MySQL</li> <li>· Supported remote or in-person students and staffs for technical issues</li> <li>· Guided guest speakers and students using the Blackboard Collaborate tool</li> </ul>

## 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.

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