

Yuchen (Neo) Huang

<https://neohuang.us/>

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TECHNICAL SKILLS

- **Highly skilled in:** Python, Java, SQL, C, C++
- **Proficient in:** PHP, HTML5, Javascript, C#
- **Deployment Tools:** Docker, Paasta, Jenkins
- **Full-Stack Tools/Libraries:** Django, Python-Flask, Pyramid, OpenAPI(Swagger), Node.js
- **Big Data Tools:** Apache Kafka, Apache Cassandra, Apache Spark, Elasticsearch, Redis, Apache Crunch
- **Databases:** SQLAlchemy, MySQL, MongoDB, PostgreSQL
- **Front-end Tools/Libraries:** Vue.js, Vuetify.js, Bootstrap, D3.js, WebRTC

PROFESSIONAL EXPERIENCE

- **Google** Mountain View, CA
Software Engineering Intern Sept. 2019 - Nov. 2019
 - Conducted an Internet measurement research to study the mixed-content issue; the result revealed the effectivity of a solution to fix the mixed-content issue.
- **Facebook** Menlo Park, CA
Software Engineering Intern May 2019 - Aug. 2019
 - Implemented a fuzzing engine tailored for Facebook C++ services; the fuzzing engine can test the services end-to-end with minimum human involvement.
 - Designed a coverage-based grey-box fuzzing algorithm which can concurrently fuzz against stateful services; the algorithm improved the fuzzing speed by 26% compared to the black-box solution.
 - Used a machine-learning-based algorithm to enhance the coverage-based algorithm which eventually achieved an extra 56% speed improvement.
- **Yelp** San Francisco, CA
Software Engineering Intern May 2018 - Aug. 2018
 - Designed Yelp's Threat Intelligence Platform (TIP), a service which digests threat intel, reveals adversary campaign by correlating independent incidents based on observable common assets.
 - Implemented a RESTful interface offering TIP the capability to interact with other security infrastructure such as firewalls, Intrusion Detection Systems, and anti-virus software, using Python Pyramid, Swagger, and SQLAlchemy.
 - Built a dashboard to visualize threat intel using Javascript, HTML, D3.js, and Bootstrap.
 - Revamped Yelp's internal security tools to coordinate with the Threat Intelligence Platform.
- **Case Western Reserve University** Cleveland, OH
Research and Teaching Assistant Jan. 2016 - May 2019
 - **Research Assistant:** Focused on various topics related to computer networks and cyber security including X.509 PKI, Blockchain, Anti-phishing, and Edge Computing.
 - **Teaching Assistant:** Served as TA for courses including EECS 233 Introduction of Data Structure, EECS 341 Introduction of Database System, and EECS 325/425 Computer Networks.

EDUCATION

- **Case Western Reserve University** Cleveland, OH
Ph.D., Computer Science; GPA: 3.64 Aug. 2015 - Present

PROJECTS (WWW.GITHUB.COM/LAMBDAHUANG)

- **Phishing Website Detection:** Proposed a novel machine-learning-based method to recognize phishing websites leveraging a set of unsusceptible features which are extracted from results of network measurements. Ultimately, the classifier achieved overall 91% accuracy on a dataset more than 40,000 domains. (Python, Scikit-learn, C, SQL)
- **Android Application Metadata Collector:** Built a light-weight crawler using Python which collects the metadata of Android application from the Google Play and the Aptoid. (Python)
- **Memory-optimized X.509 Certificate Collector:** Developed a HTTPS-certificate crawler with C language, which crawler is optimized for working in the low-memory environment such as the single board computer and Planetlab virtual hosts, using CURL, OpenSSL and HTMLStreamParser. (C, libcurl, htmlstreamparser)