# Victor Ongkowijaya

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## Education

**Princeton University** – Princeton, NJ
MA, Computer Science, Full Scholarship

Expected: May 2021
Advisors: Jonathan Mayer & Jennifer Rexford

**University of Michigan** – Ann Arbor, MI
BSE, Computer Science, *Magna Cum Laude*

May 2019
Advisor: Roya Ensafi

## Skills

**Programming:** C, C++, C#, Python, Go, Java, JavaScript, HTML, CSS, SQL, Matlab, R, ARM/x86
**Tools:** Google Cloud Platform, Amazon Web Services, Bash Scripting, Git
**Coursework:** Operating Systems, Web Systems, Distributed Systems, Database Systems, Computer Networks, Computer Security, Computer Architecture, Data Structures & Algorithms

## Experience

**Princeton University** – Princeton, NJ
Research Assistant / Software Engineer

Sep 2019 – Present

- Leading a joint study with Mozilla for Firefox Pioneer, a platform for user research at scale (30K+ users)
- Developing an efficient browser extension (under 50 ms. average runtime) to perform machine learning classifications on HTML elements using JavaScript to study online agreements, achieving 99% accuracy and ~95% P/R

**University of Michigan** – Ann Arbor, MI
Research Assistant / Software Engineer

Sep 2017 – May 2019

*Censored Planet:* Developed a platform to remotely measure network interference in 170+ countries
- Built DNS-side network interference detection module from scratch using Go, one of three core product functionalities, measuring censorship in 170+ countries within 45 minutes
- Automated the interference detection module for long-term data collection on Google Cloud, continually publishing data actively used by researchers and organizations for the past 2 years (censoredplanet.org)

*Russian Censorship:* Worked with activists to perform first-ever technical analysis of Russian censorship practices
- Developed a novel technique to detect/classify network interference and built the software using ZMap and Python, which was executed from multiple vantage points including AWS nodes, VPS providers, and Russian collaborators
- Analyzed all collected data and published a research paper at a major conference (ndss-symposium.org), leading to coverage by 80+ news agencies worldwide

**University of Michigan** – Ann Arbor, MI
Teaching Assistant, Introduction to Computer Science (eecs183.org)

Sep 2017 – May 2019

- Collaborated with faculty to create and grade assignments, projects, and exams for 1000+ total enrolled students
- Led weekly sections for 30 students on C++/Python and held office hours helping ~15 students weekly
- Performed in the top 25% of instructor effectiveness school-wide, as indicated by student surveys

**Nokia** – Ann Arbor, MI
Software Engineering Intern, Backend, Deepfield Security

May 2017 – Aug 2017

*Enterprise Network Security:* Enhanced security software used by large companies and 90% of US cable network
- Built new Python integration test pipeline which was 50% faster with 40% less crashes, executed on every code commit
- Fixed deployment issues as well as improved existing software components, resolving ~30 major tickets

**Merit Network** – Ann Arbor, MI
Research Assistant / Software Engineer

Sep 2016 – May 2017

*ISP Network Security:* Enhanced security software affecting all users of a 4000-mile internet fiber optic network
- Analyzed real-world DNS traffic to research security methods against botnet activity and potential DDoS attacks
- Implemented DNS traffic visualization tool and extended the currently deployed network monitoring software