

YUNMING XIAO

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EDUCATION

Ph.D., Computer Science Sep 2019 - *Present*
Northwestern University, Evanston, IL
GPA: 4.0/4.0, Advisor: *Prof. Aleksandar Kuzmanovic*

B.Eng., Computer Science Sep 2015 - Jun 2019
Beijing University of Posts and Telecommunications, Beijing, China
GPA: 3.7/4.0 (87/100), Graduated With Honors

EXPERIENCE

Northwestern University, USA Sep 2019 - *Present*
Research Assistant, Advisor: Prof. Aleksandar Kuzmanovic
RING: One DVPN Tool to Rule Them All

- Performed the first systematic measurement study of the decentralized VPNs focusing on the major players
- Developed a dVPN manager which simplifies the usability of dVPNs and provides security guarantees

De-Kodi and SafeKodi: Understanding the Kodi Ecosystem

- Worked on De-Kodi, a system capable of crawling Kodi's decentralized ecosystem (Docker, Mitm Proxy)
- Developed SafeKodi system which leverages the help of Kodi users to explore the Kodi ecosystem in the wild and, in return, offers information about potentially malicious add-ons to Kodi users.
- SafeKodi has received media coverage and is used by over 16k distinct users

Bytedance Inc., China Mar - Jul 2019
Infrastructure R&D Intern

- Implemented an efficient dependency solver for Cronjob and FaaS systems of Bytedance Cloud
- Implemented an alarm system with Message Queue and Kafka for Cronjob and FaaS systems
- Integrated the Cronjob and FaaS systems with the internal logging system and service billing system

Tsinghua University, China Feb 2018 - Mar 2019
Research Assistant, Advisor: Prof. Wenfei Wu

- Designed and implemented the prototype of rate limiter on programmable switches with P4 language

PROJECTS

Computer Networks Related (Python) Sep 2019

- Implemented a DNS proxy with HTTPS wrapper for DNS over HTTPS (DoH)
- Implemented a partial reliable sliding-window transfer protocol and built the simulation environment

Operating System Related (C) Jan 2020

- Implemented the concurrency control of producer-consumer problem, different queuing and scheduling mechanism, driver interfaces, and virtual address spaces using paging under Nautilus kernel framework

Distributed Temperature Control System (C++) Mar 2019

- Implemented a distributed temperature control system including the server and terminal devices with QT GUI and MySQL databases. The system components communicates by Socket modules

Compiler for C Programming Language (C) Sep 2018

- Implemented a C programming language compiler including lexical, syntactic, and semantic analysis

SKILLS

Programming: C, C++, Python, Java, JavaScript, Shell, SQL, HTML/CSS, P4, Assembly, \LaTeX
Tools: Docker, Kubernetes, Tstat, CherryPy, Mininet, POX, MySQL, PostgreSQL, QT, Git