Chenkai (Nicholas) Wang

Ph.D. Student in Computer Science
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EDUCATION

University of Illinois Urbana-Champaign — 2023–2028 (expected)
Ph.D. in Computer Science
Advisor: Gang Wang

University of Illinois Urbana-Champaign — 2021–2023
M.S. in Computer Science
Thesis: *VeriSMS: A message verification system for inclusive and trusted patient outreach*
Advisor: Gang Wang

University of Illinois Urbana-Champaign — 2017–2021
B.S. in Geography and Geographic Information Science
Minor in Computer Science

RESEARCH INTERESTS

Human-Computer Interaction; Internet Measurement; Operating Systems; Data Analysis; Security and Privacy; Computer Networks;

PUBLICATIONS

[CHI '24] VeriSMS: A Message Verification System for Inclusive Patient Outreach against Phishing Attacks
Chenkai Wang, Zhuofan Jia, Hadjer Benkraouda, Cody Zevnik, Nicholas Heuermann, Roopa Foulger, Jonathan A. Handler, Gang Wang. In *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24) May 11-16, 2024, Honolulu, HI, USA*. doi: 10.1145/3613904.3642027

[WWW '22] Revisiting Email Forwarding Security under the Authenticated Received Chain Protocol
Chenkai Wang, Gang Wang. In *Proceedings of the ACM Web Conference 2022 (WWW '22) April 25–29, 2022, Virtual Event, Lyon, France*. doi: 10.1145/3485447.3512228

APPOINTMENTS

University of Illinois Urbana-Champaign — Jan 2022 – Dec 2022
Teaching Assistant – CS461 Computer Security I

University of Illinois Urbana-Champaign — Jan 2018 – May 2018
Course Assistant – CS125 Intro to Computer Science

INVOLVEMENTS

Operation of BGP Autonomous Systems AS142130, AS142282
I am the sole operator of AS142130 and AS142282 network, which I used for my home network and provide myself IPv6 access, as well as running experimental technologies.

- Design, implement and deploy the tunnal-based, software-defined overlay network
- Appear in multiple Internet Exchanges and private peering sites
- Provide IPv6 transit to one downstream network
- Stable operation since 2020

b23.wtf Tracking-Removal Service

I am the sole author and maintainer of this project. It removes tracking parameters from `https://b23.tv/[location]` short URLs generated by bilibili apps.

- Linux single-threaded epoll() HTTP server with 0 dependencies in C
- HTTP query module invoked with pthread multithreading
- In December 2022, 90k total requests and 3k unique visitors over previous 30 days, statistics by Cloudflare

Project V (formerly V2Ray)

I provide multiple community services as listed below for this open-source anti-censorship network utility project with over 60k stars on GitHub.

- Maintain the security infrastructure and protocols for internal collaborations
- Involve in new protocols' design and suggestions
- Manage documentation translations

SKILLS

Languages: C/C++, Python, Shell Scripts
Areas: Computer Networks, Operating Systems, Embedded Systems