Gaukas Wang

E-mail: i@gaukas.wang | GitHub: github.com/gaukas | Portfolio: gauk.as

EDUCATION

University of Colorado Boulder Boulder, CO
Computer Engineering

Bachelor of Science (B.Sc.), Summa Cum Laude *Aug 2018 - May 2021*
Doctor of Philosophy (Ph.D.), Advisor: Prof. Eric Wustrow *Aug 2022 - May 2027(est.)*

RESEARCH AREA

Anti-Censorship: Censorship Analysis, Circumvention, and Measurements
Network, Privacy, and Cybersecurity: Network Measurements, Application Fingerprinting, AppSec

SELECTED PUBLICATIONS

MRTOM: Mostly Reliable Totally Ordered Multicast Distributed Systems, Multicast
In Proceedings of ICDCS'2023 (IEEE Xplore pending) *July 2023*

Chasing Shadows: A security analysis of the ShadowTLS proxy Censorship, Network Security
In Proceedings of FOCI'2023 *Feb 2023*

Acuerdo: Fast Atomic Broadcast over RDMA Atomic Broadcast, RDMA, Consensus
In Proceedings of ICPP'2022 *Aug 2022*

SELECTED PROJECTS/OTHER CONTRIBUTIONS

W.A.T.E.R.: WebAssembly Transport Executable Reactor
Next-generation engine for WebAssembly-based network transport protocols

uTLS
Low-level access TLS ClientHello mimicry library in Go, allowing low-level access to TLS Handshake

uQUIC
Low-level access QUIC Initial Packet mimicry library in Go, allowing low-level access to QUIC Handshake

clienthellod
A TLS ClientHello and QUIC Initial Packet parser for fingerprinting purposes

TLSFingerprint.io/QUIC.TLSFingerprint.io
Online museum for observed TLS/QUIC client fingerprints

CVE-2021-36539
Unbound File Access vulnerabilities in Canvas LMS by Instructure, Inc.

CVE-2021-28681
DTLS Man-in-the-Middle(MITM) vulnerabilities in pion/webrtc by Pion

WORKING EXPERIENCE

Graduate Student Researcher Censorship, Cybersecurity, Network
University of Colorado Boulder *Aug 2022 - Present*

Fullstack Software Engineer C++, PHP, Python, MySQL, REST API
Intelepeer Cloud Communications LLC *Aug 2021 - June 2022*

Undergraduate Research Assistant/Temp Researcher Distributed Systems, Network, RDMA
University of Colorado Boulder *Apr 2020 - Apr 2022*

Teaching Experience

Teaching Assistant

University of Colorado Boulder

ECEN 5133*: Fundamentals of Computer Security* *Expected Fall 2023*

ECEN 5313*: Concurrent Programming* *Fall 2020 / Fall 2022*

ECEN 1310*: C Programming for ECE* *Spring 2020 / Spring 2021*