

Haotian Deng

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EDUCATIONAL EXPERIENCES

Beijing University of Posts and Telecommunications, Beijing

Sep. 2020 - Jun. 2024

Degree: Bachelor of Engineering **Major:** Information Security

Relevant Coursework: Computer Architecture, Operating Systems, Database Technology, Computer Networks, Algorithm Design and Analysis, Information Security Mathematics, Network Penetration Testing, Modern Cryptography.

PUBLICATIONS

Haotian Deng and Shengli Pan, "Evaluating Network Boolean Tomography under Byzantine Attacks". The 2023 IEEE Global Communications Conference (GLOBECOM'23)

- Our research is conducted under the technology of Network Boolean Tomography, with a primary focus on assessing the effectiveness of Byzantine Attacks. In addition, our objective is also to explore the optimality of Byzantine Attacks in various environmental parameters (e.g. the structure of topology, attack frequency, attack times, attack location). Ultimately, we aim to investigate the impact of Byzantine Attacks on the entropy of the network, providing insights into their influence on network stability.
- We conducted experiments involving the design of diverse attack strategies, employing Python for the simulation of network links, algorithmic identification, and Byzantine attack scenarios. And analyzed outcomes from multiple analytical perspectives.

RESEARCH PROJECT

Main Researcher, the National Natural Science Foundation of China (NSFC) under Grant No.62271066 *Jul. 2022 - May 2023*

- Developed algorithms and experimental designs to explore Byzantine attacks in network measurement.
- Developed a visual tool NBT_ByzAtt_GUI to help make our findings easier to understand.
- Published paper as first author in IEEE GLOBECOM.
- Visual tool code: <https://gitee.com/eric-teng/nbt-byz-att-gui>
- Project code: https://gitee.com/eric-teng/eval_nbt_vs_byzantine

Main Contributor, openKylin Open Source Project

Feb. 2023 - Mar. 2023

- Fixed a medium bug in Moby (Docker Engine) prior to version 20.10.14, it was discovered that the container had mistakenly started with non-empty inheritable Linux process capabilities and had programs with inheritable capabilities raise those capabilities to the allowable set, giving non-privileged users and processes additional access to these inheritable files
- Verified the vulnerable and submitted a patch, ensuring that the container does not start with inherited Linux process capabilities
- Contribution link: <https://gitee.com/openkylin/containerd>

Application Deployment, openEuler Application Deployment

Sep. 2023

- Developed a web server using openEuler OS and openGauss database, implementing various technologies for application support and deployment.

Project Leader, Climate Data Sonification Project, Beijing University of Posts and Telecommunications *Jun. 2023 - Present*

- Explored methods for the sonification of climate data, converting climate data into musical scores.

WORK EXPERIENCE

Co-founder, Beijing Fanxing Qiming Educational Technology Co., Ltd.

May 2021 - Present

- Co-founded Beijing Fanxing Qiming Educational Tech, launching a pioneering student collaboration platform that expanded into a widely acclaimed social matching service.
- Led strategic initiatives and innovations, significantly contributing to the company's acclaim and growth in the educational technology sector.

Intern, China Cybersecurity Association

May 1, 2022 - July 1, 2022

- Handled administrative tasks and contributed to the day-to-day operational efficiency of the association.
- Contributed to the initiative of promoting enterprises to comply with Cybersecurity Multi-Level Protection Scheme 2.0.

Intern, Beijing Softcom Power Co., Ltd.

Sep. 2023

- Responsible for developing and setting up databases on the openEuler operating system.
- Focused on optimizing database performance and ensuring system stability and security.

CAMPUS ACTIVITIES

Class President, School of Cyberspace Security, Beijing University of Posts and Telecommunications

Sep. 2020 - Present

- Represented and led the student body, organizing events and acting as a liaison between students and faculty.

Project Leader, Key Social Practice Program, School of Cyberspace Security, BUPT

Jul. 2022

- Led a major social practice project, focusing on team collaboration and the execution and planning of key tasks.

PROFESSIONAL SKILLS

- Proficient in Python and C; competent in C++, PyTorch, Git and network penetration tools.
- Familiar with data structures (e.g., linked lists, hash tables, binary trees), computer networking and operating systems.

PERSONAL STATEMENT

- Highly proactive and goal-oriented with a strong focus on self-improvement.
- Possess strong mental resilience, personal cultivation, and excellent interpersonal and teamwork skills.
- Quick to adapt and respond with a diligent and efficient work ethic.
- Adept at learning and embracing new technologies and concepts.