RSSAC Caucus Membership Application Statement of Interest (SOI) Form

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Please make sure to review Points of Consideration section under "How to Join" on the <u>RSSAC Caucus</u> web page before completing this SOI.

- Name: Baojun Liu
- Affiliation and current position: Tsinghua University, China. Postdoc Researcher (Shui Mu Tsinghua Scholar)
- Relevant qualifications: I received my Ph.D degree in 2020 from the Department of Computer Science and Technology at Tsinghua University under the supervision of Prof. Haixin Duan and Prof. Ying Liu. My research interests are mainly focused on the security of Internet infrastructure, especially the domain name system. In the past three years, I have published about 20 peer-reviewed research papers in security conferences, including IEEE Security and Privacy, USENIX Security, ACM CCS, and NDSS. My research efforts related to DNS security has been recognized with the NDSS 2019 Distinguished Paper, the IMC 2019 Best Paper Award and Community Contribution Nominee, the IRTF 2020 Applied Network Research Award (ANRP), and has been reported by ACM TechNews, The Register, Hackread, IT News, ZDNet, and other leading media. To increase the impact of RSSAC in the Chinese community, I assisted Professor Haixin Duan in organizing the Critical Internet Resources Forum (CIRF) at the 2020 Beijing Cyber Security Conference. We invited Paul Hoffman and Fred Baker to present at the CIRF.
- Motivation for membership in the RSSAC Caucus: I'm interested in researching the security of DNS root services. In addition, I am happy to broadcast the consensus of RSSAC in the Chinese technical community.
- Indication of availability: I am available for RSSAC casucus for about 15 hours per month.
- Formal roles (if any) and interests in the work of RSSAC: No formal role yet. I'm interested in researching rogue DNS root instances, DNS over encryption, DNS cookie, EDNS(0), IDN, New gTLDs.
- **Links where appropriate**: My homepage: https://www.liubaojun.org/ Academic papers:
 - 1) Kaiwen Shen *, Chuhan Wang *, Xiaofeng Zheng, Minglei Guo, Chaoyi Lu, Baojun Liu †, Yuxuan Zhao, Shuang Hao, Haixin Duan, Qinfeng Pan and Min

- Yang. Weak Links in Authentication Chains: A Large-scale Analysis of Email Sender Spoofing Attacks. Accepted by the 30th USENIX Security Symposium, Vancouver, BC, Canada, August 2021.
- 2) Xiaofeng Zheng, Chaoyi Lu, Jian Peng, Qiushi Yang, Dongjie Zhou, Baojun Liu, Keyu Man, Shuang Hao, Haixin Duan and Zhiyun Qian. Poison over Troubled Forwarders: A Cache Poisoning Attack Targeting DNS Forwarding Devices. Accepted by the 29th USENIX Security Symposium,,Boston, MA, USA, August 2020.
- 3) Chaoyi Lu, Baojun Liu, Zhou Li, Shuang Hao, Haixin Duan, Mingming Zhang, Chunying Leng, Ying Liu, Zaifeng Zhang and Jianping Wu. An End-to-End, Large-Scale Measurement of DNS-over-Encryption: How Far Have We Come? Accepted by the 2019 Internet Measurement Conference (IMC), Amsterdam, Netherlands, October 2019.
- 4) Eihal Alowaisheq, Peng Wang, Sumayah Alrwais, Xiaojing Liao, XaioFeng Wang, Tasneem Alowaisheq, XiangHang Mi, Siyuan Tang and Baojun Liu. Cracking Wall of Confinement: Understanding and Analyzing Malicious Domain Takedowns. Accepted by the ISOC Network and Distributed System Security Symposium (NDSS), San Diego, CA, USA, February 2019.
- 5) Baojun Liu, Chaoyi Lu, Haixin Duan, Ying Liu, Zhou Li, Shuang Hao and Min Yang. Who Is Answering My Queries: Understanding and Characterizing Interception of the DNS Resolution Path. Accepted by the 27th USENIX Security Symposium,, Baltimore, USA, August 2018.
- 6) Baojun Liu, Chaoyi Lu, Zhou Li, Ying Liu, Haixin Duan, Shuang Hao and Zaifeng Zhang. A Reexamination of Internationalized Domain Names: the Good, the Bad and the Ugly. Accepted by the 48th IEEE/IFIP International Conference on Dependable Systems and Networks, Luxembourg City, Luxembourg, June 2018.
- 7) Daiping Liu, Zhou Li, Kun Du, Haining Wang, Baojun Liu and Haixin Duan. Don't Let One Rotten Apple Spoil the Whole Barrel: Towards Automated Detection of Shadowed Domains. Accepted by the 24th ACM Conference on Computer and Communications Security, Dallas, TX, October 2017.