

Xiao Li, Ph.D. Candidate

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Education

- 2019 – Present 📖 **Ph.D. Candidate, University of California, Riverside, USA** in Computer Science. GPA: 3.88/4
- 2017 – 2019 📖 **M.Sc., University of California, Riverside, USA** in Computer Science. GPA: 3.88/4 (Transferred to Ph.D. program)
- 2013 – 2017 📖 **B.E., Huazhong University of Science and Technology, China** in Information Security. GPA: 3.65/4 (Outstanding Graduates)

Employment History

- 2019 – Present 📖 **Graduate student researcher.** Department of Computer Science and Engineering, Bourns College of Engineering, University of California, Riverside.

Research Projects

- 2021 – Present 📖 **Open Membership in Byzantine Quorum System** Advisor: Prof. Mohsen Lesani
- 2020 – 2021 📖 **Hamraz: Resilient Partitioning and Replication** (will appear in *S&P 2022*) Advisor: Prof. Mohsen Lesani
Our project enforces end-to-end confidentiality, integrity and availability policies for distributed systems in the face of Byzantine attacks. We present a security-typed object-based language and an information flow type inference system to automatically synthesize trustworthy-by-construction distributed system.
- 2019 – 2020 📖 **Hampa: Solver-aided Recency-Aware Replicated Objects** (published in *CAV 2020*) Advisor: Prof. Mohsen Lesani
Given a sequential object with its integrity and recency requirements, our project automatically synthesizes a correct-by-construction replicated object that guarantees convergence, integrity and recency properties with as little coordination as possible.
- 2014 – 2015 📖 **Conditional Identity-based Broadcast Proxy Re-Encryption and Its Application to Cloud E-mail** Advisor: Prof. Peng Xu
Participated in the implementation of the prototype for a cloud email system based on CIBPRE and obtained *3rd Prize* in the 8th National College Student Information Security Contest as team leader.



Publications

- 1 Li, X., Houshmand, F., & Lesani, M. (2022). Hamraz: Resilient partitioning and replication. will appear in S&P.
- 2 Li, X., Houshmand, F., & Lesani, M. (2020). Hampa: Solver-aided recency-aware replication, In *International conference on computer aided verification*. Springer.

Awards and Achievements

- 2019 📖 **Department Fellowship Award**, University of California, Riverside.
- 2017 📖 **Outstanding Graduates**, Huazhong University of Science and Technology.
- 2016 📖 **Outstanding Academic Award**, Huazhong University of Science and Technology.

Awards and Achievements (continued)

- 2015  **Third Prize**, in the 8th National College Student Information Security Contest.
- 2014  **Public Welfare Scholarship**, Huazhong University of Science and Technology.