

JUNXIANG NIU

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🌐 <https://github.com/Itachi666>



🎓 EDUCATION

Beihang University (BUAA), Beijing, China

2018 – Present

Master student of Cyberspace Security, School of Cyber Science and Technology, expected January 2021

Beihang University (BUAA), Beijing, China

2014 – 2018

B.S. of Information Security, School of Mathematical Sciences

👤 EXPERIENCE

A Cross-chain System based on Fabric

Jan. 2019 – Present

Go Laboratory Project, collaborated with Aisino

Based on the Hyperledger Fabric project, adding cross-chain modules to make Fabric support cross-chain function between different consortium blockchains.

- As the main person in charge, I led the project design, architecture design and documentation of the entire project, and was responsible for the realization of the core functions
- The project uses gRPC to support new cross-chain functions by repackaging the original RPC port of Fabric
- The project uses Nginx and Keepalived for load balancing and double hot standby

Libsm

Mat. 2018 – Jun. 2018

Rust Laboratory Project, collaborated with Cryptape, <https://github.com/cryptape/libsm>

A Rust Library of China's Standards of Encryption Algorithms (SM2/3/4)

- Implemented the SM3 hash function and certificate verification function
- The project has been used in CITA (<https://github.com/cryptape/cita>)

An Implementation of Raft

Jun. 2019 – Jun. 2019

C++, Python Individual Project, <https://github.com/Itachi666/cpp-raft>

Implemented two subsections, leader election and log replication, in Raft consensus algorithm according to Raft's documentation. The project can support data consistency for at least three nodes.

⚙️ SKILLS

- C++ > Go > Python ≈ Rust ≈ JavaScript, familiar with basic data structures and algorithms
- Familiar with Linux environment, able to use common development tools such as Git, Docker
- Have a certain distributed system foundation, understand common distributed consistency protocols
- Have a certain cryptographic foundation, understand common cryptosystems and zero-knowledge proofs

♥️ HONORS AND AWARDS

China Internet Development Foundation Cyber Security Special Fund Scholarship

Oct. 2018

1st Prize, Award on The 10th National College Student Information Security Contest

Jul. 2017

📖 MISCELLANEOUS

- Languages: English - CET 4/6, Chinese - Native speaker
- CCF-CSP: 310 (Overall ranking 4.44%)