

Ru Ji

About me

I'm currently an undergraduate student at Beijing University of Posts and Telecommunications. I'm good at learning languages, I'm also very passionate about doing researches in interesting areas. I've been working on some competitions and researches during the past 3 years in college. Besides my studies, I have various hobbies such as skiing, skateboarding and so on.

Contacts

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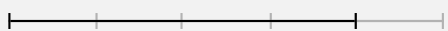
twitter RR

Skills

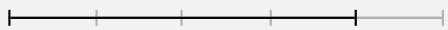
Python



C/C++



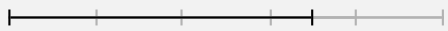
TeX



Linux



Solidity



Languages

Chinese



Native Speaker

English



CET-6 666; IELTS 7

Français



95/100(5th semester)

97/100(6th semester)

Education

Beijing University of Posts and Telecommunications

B.Eng. Cyberspace Security | GPA: 3.65/4 | Expected July 2021

Relevant Coursework: Fundamentals of financial security; Assembly language and reverse engineering; Modern cryptography; OS kernel; Probability and statistics; Fundamentals of web development; Software security; Network security Design work(group work):

- Secure P2P Instant Messaging System (A team of five)

We developed a secure P2P instant message system which is based on P2P and C/S architecture, The message system can transfer files, messages both online and offline.

- Secure Online Drive (A team of four)

We developed a secure online drive which is based on C/S architecture, with SSL to ensure the safety of transmission, AES to ensure the safety of storage.

- Vulnerabilities Exploitation and Detection Experiment (A team of five)

In the project we constructed an environment with four CVE vulnerabilities, attack & detect the attack.

Publications

DEPOSafe: Demystifying the Fake Deposit Vulnerability in Ethereum Smart Contracts

Ru Ji, Ningyu He, Lei Wu, Haoyu Wang, Guangdong Bai and Yao Guo

The 24th International Conference on Engineering of Complex Computer Systems (ICECCS), 2020.

Fake deposit is one of the most representative attacks related to exchanges and tokens in blockchain ecosystem, causing large financial losses. We take the first step to demystify the fake deposit vulnerability. We summarize essential patterns and propose an automated tool to detect and verify fake deposit vulnerability in ERC-20 smart contracts. Our findings demonstrate the urgency to identify and prevent the fake deposit vulnerability.

Characterizing Cryptocurrency Exchange Scams

Pengcheng Xia, Haoyu Wang, Bowen Zhang, Ru Ji, Bingyu Gao, Lei Wu, Xiapu Luo and Guoai Xu

Computers & Security, 2020.

Cryptocurrency exchanges attract the attention of attackers, a number of scam attacks were allegedly targeting cryptocurrency exchanges. In this paper we make the first effort to identify and characterize cryptocurrency exchange scams. We identify scam domains and fake apps and investigate the relationship between them.

Research Experiences

(Ongoing) Scams in the Bitcoin Ecosystem

There are many kinds of scams in bitcoin ecosystem: ransomware, sextortion, blackmail...We collect the data related to bitcoin scams and analyse certain features, we are now working on drawing the money flow graph to find more information about the scam chain.

Blockchain Ledger Condense Algorithm

Given the fact that the size of the ledger continues to grow, and there is a large amount of rubbish information in the ledger that does not deserve the space it occupies. We designed an algorithm to condense the blockchain ledger by deleting transactions or blocks with chameleon hash. I'm responsible for the coding part and the report writing part.

Awards

First Prize in National Cryptography Competition	Nov 2019
Second Prize in the National Mathematical Modeling Competition	Aug 2019
Outstanding Student Leader	2018/2019
Scholarship of 2nd Degree	2018/2019
First Prize in the 3rd National English Forum on Electric Power and Humanities	May 2019
Second Prize in National English Reading Competition(FLTRP)	June 2018
First Prize in National English Competition for College Students	May 2018

Supplementary Information

Leader in School's Taekwondo Club	Jul 2018 - Jul 2019
Monitor in Cyberspace Security School	Sep 2017 - now
Vice Minister in School's Students' Union	Jul 2018 - Jul 2019
10th in Capital University Students' Skiing Competition	Nov 2018