

# FEDOR SAKHAROV

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## ABOUT ME

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I am a Software Engineer with background in Systems Software development, Networking, Information Security and Blockchains. For the past 4+ years I have been writing code in Rust. Currently my main interest outside of work is the field of Zero Knowledge, SNARKs.

## EXPERIENCE

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### Core Software Developer, Parity Technologies

Dec 2018 — Present

- Worked on [libp2p](#) implementation in Rust.
- Worked on the previous version of Parachain Consensus code for Polkadot.
- Implemented the skeleton and several subsystems with the current Parachain Consensus.
- Built a framework in Rust for massive chain integration testing in Kubernetes with rust: [gurke](#).
- Helped maintain [cachepot](#): a caching build server.
- Lead the team effort to release a new version of cold wallet [parity-signer](#).

Technologies: Rust, Networking, libp2p, Parachain Consensus, Cold Wallets, Kubernetes, CachePot Build Server, CI, CD, Load Testing,

### Software Engineer, Waves Platform

Sep 2018 — Dec 2018

- Started the development of the Waves Blockchain node implementation in go: [gowaves](#).

Technologies: Go

### Software Engineer, SONM

Jun 2018 — Aug 2018

- Worked on the implementation of SONM: decentralized fog computing marketplace.

Technologies: Go, Docker, Ethereum, Solidity, CI, CD

### Senior Software Engineer; Team Lead, Positive Technologies

Oct 2015 — Jun 2018

- Implemented a high-speed traffic capture and analysis for the Application Firewall project.
- Implemented various features within the in-house fork of the NGINX web server.
- Lead an R&D team.
- Researched topics in Blockchains and AI.
- Presented AI research at DEFCON 26 in Las Vegas: [youtube](#).
- Presented research on EVM bytecode reversing at r2con: [youtube](#).

Technologies: EVM, C, NGINX, AF\_PACKET, PF\_RING, libnuma, PostgreSQL

### Senior Software Engineer, Group-IB

Feb 2014 — Oct 2015

- Started the development of the new product with IDS/IPS capabilities.
- Took the project to production.
- Supervised the first production installations within the clients' ecosystems.

Technologies: C, Linux Kernel, Suricata, AF\_PACKET, PostgreSQL, Logstash.

## **Systems Software Engineer, Security Code**

**Feb 2012 — Feb 2014**

- Developed in-house HIDS solution within Linux Kernel.
- Helped with launching first versions of the in-house IDS solutions.

Technologies: C, Linux Kernel, Suricata, AF\_PACKET, PF\_RING, Qt.

## **Researcher, Moscow State University,**

**Mar 2009 — Jan 2012**

- Performed Research & Develop work on different project.

## **EDUCATION**

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### **Moscow State University, Master of Science**

**2005 — 2018**

- Thesis: Improving the fine-grained security control within the Linux Kernel [github](#).
- Taught a class on Haskell.
- Taught Fundamentals of Information Security.

## **CURRENT PROJECTS**

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### **Implementing Protocols in ZK**

- The goal is to self-educate in the topics in Zero Knowledge
- Implementations of the protocols from [Proofs, Arguments and Zero Knowledge](#) book by Justin Thaler in Rust: [blog posts](#)

## **PAST PROJECTS**

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### **Radare2**

- Was a contributor to the [radare2](#) Open Source reverse engineering framework written in C.

## **SKILLS**

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- Code: Rust, C, Golang
- Tools: GH Actions, Docker, Shell, Kubernetes.