FEDOR SAKHAROV

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ABOUT ME

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

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

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

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

Radare2

- Was a contributor to the `radare2` Open Source reverse engineering framework written in C.

SKILLS

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