

PAVEL TURYANSKIY

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SUMMARY

I'm a software developer and amateur mathematician, based in Russia. Currently interested in functional programming, type theory, building high assurance systems.

Used to do different jobs until I felt comfortable with my general IT experience.

SKILLS AND ACCOMPLISHMENTS

NATURAL LANGUAGES: Russian, English

PROGRAMMING LANGUAGES: Agda, Idris, Haskell, C, Arend, Julia, GNU Octave, Python, x86 asm
(in order of decreasing proficiency)

PROGRAMMING: have ~5 years of Haskell experience
contributing to Agda project
maintaining a [custom stdlib](#) for Cubical Agda
in love with effect systems and dependent types
have a bit of experience with firmware modding

SECURITY: know how to use logical programming to solve security problems like
authorization, information flow analysis
can do something resembling really secure boot with coreboot +
HEADS and TPM
have basic experience with SIGINT

NETWORKING: designed and overseen the construction of ethernet networks (up to
a hundred of PCs, mainly copper and a bit of fibre)
designed and overseen the construction of virtualization networks
designed and developed a simple scalable VoIP system using Asterisk
+ custom call routing in LUA

VIRTUALIZATION: designed, built and maintained virtualization clusters using VMware
ESXi and Proxmox
transitioned legacy infrastructures to private cloud

OS: operated Windows Server (2003 - 2012R2), FreeBSD, Linux (Debian,
CentOS) in production
personally used QubesOS, Void Linux, OpenBSD, toyed with seL4,
KasperskyOS

TRANSLATIONS: [Category Theory for Programmers by Bartosz Milewski](#), see Russian
subtitles

INTERESTS

MATHEMATICS: studying random stuff from nLab and 1Lab
have hands-on experience with HoTT and its' application to programming
dream of multimodal HOTT with linearity, cohesion and guarded recursion
studied topology and differential geometry under Iskander Taimanov
completed Robert Ghrist's [Calculus: Single Variable](#)

HARDWARE: Thinkpad tinkering
still want to learn building UAVs and autonomous weapons

WORK EXPERIENCE

SEP 2021–NOW (currently employed)	Software Developer at Kaspersky Lab, Russia writing Haskell and Agda for a living
DEC 2019–AUG 2021 (1 year, 9 months)	Software Developer at Tinkoff Bank., Russia helped maintain and develop Tinkoff Travel backend (written in Haskell) developed stream processing software using Apache Kafka learned to use effect systems for structuring Haskell code, in particular, fused-effects had to use legacy protocols to communicate with GDS
OCT 2017–JUL 2019 (1 year, 10 months)	Information Security Engineer at FSUE NPP Gamma, Russia was on duty in Samara Arena during FIFA 2018 world cup as a technical security consultant had done some PowerShell automation, physical fleet configuration management (w/Saltstack) operated Rohde&Schwarz and Agilent spectrum analyzers through Python + NIVISA designed computer networks had to work with obscure equipment and software
JAN 2017–AUG 2017 (8 months)	Network Engineer at Sibirskie Seti Ltd., Russia configured equipment of the following vendors: Extreme Networks, Juniper, Cisco, D-Link, TP-Link wrote network monitoring scripts for Nagios using bash/Python performed equipment and network testing with Python + scapy communicated with NOCs of other ISPs got an L2 loop in the management network once
SEP 2016–DEC 2016 (4 months)	Engineering Technician at ITVaksa Ltd., Russia everything from physical cabling to small business network/system design

EDUCATION

SEP 2014–MAY 2018 (4 years)	BS in Informatics at SibSUTI, Novosibirsk, Russia
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