

# Andreev Semen

Rust Developer | Engineer with over 10 years of experience

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## Professional Summary

Experienced in Linux system programming, resource management, and performance enhancement; currently developing Rust code in the area of High-Frequency Trading (HFT).

My professional interests include finance (fintech, stock exchanges), system-level software development, game performance optimization, and emerging technologies such as eBPF, RISC-V, AI/ML.

## Achievements

- Developed a Linux Kernel Module (LKM) Proof of Concept (PoC) for system monitoring, which earned the [Kaspersky Innovation of the year award 2023](#).
- Created performance monitoring test utilities using Python, eBPF and C/C++.
- Developed a Wireshark dissector for parsing a VPN network protocols.
- Engineered a [10 kV transformer protection cabinet](#) for a Tokamak reactor.

## Technical Skills

Languages & Tools: Rust, Python, C/C++ | Gdb, Git, Docker, Qemu | Performance: Perf, WPA, eBPF, Wireshark

## Experience — over 10 years

Apr 2025 — Present		<b>Middle Rust Systems Engineer</b>	HFT, UAE, Dubai, <a href="https://bhft.com">https://bhft.com</a>
Integrated FPGA into a high-performance distributed trading system (Rust, FFI).			
Jul 2024 — Apr 2025		<b>Senior Research Developer C/C++</b>	Cybersecurity, Moscow, <a href="http://www.kaspersky.ru">www.kaspersky.ru</a>
Developed a <a href="#">memory tracking utility</a> (C/C++) for identifying memory leaks via core dumps and Gdb. Improved Python-based test framework, eliminating 15% false failures and boosting CI reliability. Accelerated the C# WPA perf-trace plugin by 10x, cutting a 5 GB trace load from 10 min to 1 min. Developed Python library to catalog Linux kernel packages across CentOS, Debian & Ubuntu.			
Jan 2023 — Jun 2024		<b>Research Developer C/C++</b>	Cybersecurity, Moscow, <a href="http://www.kaspersky.ru">www.kaspersky.ru</a>
Developed LKM, earning the <a href="#">Kaspersky Innovation of the year award 2023</a> . Built eBPF-powered disk-I/O tracing tools with filename resolution to monitor system performance. Conduct performance analysis of antivirus software under Linux using perf and flame graphs.			
Aug 2022 — Dec 2022		<b>Programmer C/C++</b>	Telecom, Kazan, <a href="http://www.huawei.com">www.huawei.com</a>
Parsed router requests in YANG format (NETCONF protocol) and managed configurations. Stack: C/C++, CMake, gtest, protobuf, QEMU, Docker.			
Feb 2021 — Jul 2022		<b>Programmer C/C++</b>	Cybersecurity, Tomsk, <a href="http://www.infotecs.ru">www.infotecs.ru</a>
Developed a Wireshark plug-in for parsing proprietary protocols and acted as a system architect for backup software. Configured CI/CD pipelines using Docker, CMake, Conan, Ivy, TeamCity, Artifactory.			
Jun 2014 — Jun 2021	Tomsk Polytechnic University	<b>Engineer-programmer</b>	Microcontrollers, Tomsk, <a href="https://tpu.ru">https://tpu.ru</a>
Developed a 10 kV transformer protection cabinet for <a href="#">Tokamak in Kazakhstan</a> . Created programs for microcontrollers and low-level OS software. Stack: C/C++, Assembly, Linux, FPGA, Modbus, SPI.			
Sep 2016 — Jun 2021	Tomsk Polytechnic University	<b>Assistant</b>	Education, Tomsk, <a href="https://tpu.ru">https://tpu.ru</a>
Taught "Microprocessors and microcontrollers"; "Automata theory"; "Computer architecture"			

## Soft-skills

Passionate about continuous learning, regularly sharing insights from books, courses, and experience on [a personal blog](#). My academic background includes teaching at a university and **publishing 15 works**, including **3 patents**, with my latest article in 2020. My publications can be viewed on [ResearchGate](#) and [eLibrary](#).

This experience has enhanced my documentation skills. I've written comprehensive technical project documentation, manuals, and diagrams between 2015 and 2020, and in 2023 alone, I authored **a dozen internal work articles**.

I am proficient in English at a B2 level.

## Education

- 2020 Teacher-Researcher diploma "Computer Science and Engineering"
- 2016 Master degree "Information Systems and Technology"
- 2014 Bachelor degree "Computer Science and Engineering"

Scientific work: Development of hardware and software complex for researching the electrical characteristics of medical electrodes

