

# Igor Pchelnikov

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## SUMMARY

- Over 11 years of software development experience in production.
- Solid C/C++ and system development skills.
- Deep understanding of the development processes and excellent knowledge of the embedded system.

## SKILLS

**Languages:** C/C++, STL, SW Design patterns, UML

**OS:** Embedded Linux kernel, Embedded Android (AOSP), ARMv7

**Development Tools:** GCC, Clang, GDB, Valgrind

**Tracking, CI Tools:** Jira, Jenkins

**Version control:** GIT

## WORK EXPERIENCE

Dec 2020 – Present – Head of development, Sber Automotive Technologies

C++17 | embedded Linux (Android) | ARMv7 | Bluetooth (BLE, GATT)

Lead a team working on embedded Automotive Head Unit system based on Android 10

- Bring-up Android on ARM-based BSP
- Provide active support to hardware design team
- Implement Automotive HAL features such as Audio control, FM-tuning, CAN bus access, Bluetooth LE

Jan 2019 – Dec 2020 – Lead Software Engineer, BOSCH

C++17 | embedded Linux | ARMv7 | AOSP HAL | I2C | MIPI | FPGA

Work on embedded systems (AOSP and Linux based) for security and automotive video cameras

- Bring up Android system on ARM x64 chip
- Implement low level drivers for camera sensor
- Port Simulink generated code to Linux ARMv7
- Implement variety image processing features using C++17
- Discovering bottlenecks in the system and work on the platform stability. Analyzing core dumps. Investigating interposes communication - IRQs

Jun 2017 – Nov 2018 – Lead Software Engineer, Netcracker (NEC company)

Android/iOS cross platform development

I worked at Netcracker as a lead of a distributed team developing solutions for telecom providers

- Improved release quality by integrating CI procedure on Jenkins to the delivery process
- Improved collaboration with a remote team and overall team performance by facilitating regular meetings (Scrum, sprint planning, demo meeting, etc.)
- Developed a project plan for a cross-platform mobile application (~2000 man/hours)
- Worked on researched and developed of the mobile application using React-Native and NativeScript

### Sep 2014 - May 2017 – Team leader, MERA

C++11 | Linux | AOSP | ARMx64 | RTP/RTSP | H264 | Bluetooth Audio | NFC

Led eight-engineers team working on a cutting-edge collaboration desktop device based on ARMx64 and running Android OS. The team was responsible for bringing up the device, Google certification, platform stability, security, recovery mode and other platform specific functionality.

- Analyze requirements, create and estimate development stories according to the project plan
- Improved system stability. Fixed bugs on start up by analyzing core dumps and kernel messages
- Developed low-level hardware specific features for the product
- Coordinated work with remote hardware development team in Taiwan
- Built stronger relationships with the customer by improving the visibility of internal processes

### Dec 2011 – Aug 2014 – Senior Software Developer, MERA

C++03 | Parallel computing | Red Hat Linux | SIP/SDP | RTP/SRTP | TCP/IP stack | TLS

Worked on high loaded (8k simultaneously calls per server) audio bridge for conferencing based on Red Hat

- Developed new service pack for the product including several major updates like moving from x32 to x64 architecture
- Fixed performance bottle necks in the system by analyzing behavior under high load using SIPP and RTP traffic generators. Annalise call flow and RTP streams and using Wireshark
- Fixed memory usage issues in the product using analysis tools such as Valgrind
- Became a subject matter expert of the product and share the expertise with newcomers and other teams by conducting tech talks and tech transfers

## EDUCATION

State University of Nizhniy Novgorod named after N.I. Lobachevsky (UNN)

2005 – 2011– Informatics and mathematics,

Grade: Informatics and mathematics in the analysis of economic systems and business