Vladimir Yu. Ivanov

+7·924·320·09·34 | job@vova-ivanov.info | vladimir-yu-ivanov
Saint Petersburg, Russian Federation

SUMMARY

Proficient engineer (8+ yoe) with a focus on the EECS. Visited various electronics plants as board bring-up engineer for customer products. Helped robotic startup on the early stages of company formation. Services in HW and SW domains from development to deployment.

Main areas of interest: consumer electronics, industrial and mobile robotics, automotive industry, high quality products, mechatronics, cyber-physical systems, technologies impact on human beings and on economics.

SKILLS

- **Computer languages:** plain C, C++17 and STL, Python, Bash, TeX, 8-bit assembler.
- **Development tools:** gcc, gdb, Make, CMake, Docker, Vagrant, Ansible, Jenkins, SAST.
- **Various technologies:** TCP/IP, REST, Maxima, Actor Model, deb-packages.
- **Version control systems:** Subversion, Perforce, Git (main).
- **Software platforms:** POSIX, WinAPI, RTOS, ROS, Qt.
- **Embedded systems:** MCU, PLC, PCBA, Buildroot, device drivers, semiconductors, EE-lab equipment.

EXPERIENCE

TRA robotics June 2017 – present
Lead Software Engineer (full-time) Saint Petersburg, Russian Federation

- Transnational technological company around Industry 4.0 and smart manufacturing.
- Implemented SW for robotic tool controller as a member of multi-domain team. Presented HW and SW design proposals, performed initial SW implementation and controller integration into factory SW ecosystem. Launched 3 kinds of tools: Schunk's jaw-gripper, tool-changer and custom glue-gun. Stack: C++17, CMake, Boost, POCO, CAF, yaml-cpp, Python, PyTest, Bash, Docker, Vagrant, Systemd, Ansible, Doxygen, RPi CM, STM32.
- Helped to interview and to on-board 2 candidates for Embedded Engineer team role to cover controller's HW part.
- Performed R&D to evaluate gripper controller candidates. Ended up with BnR industrial PLC. Created network control FW. Stack: C++11, Automation Studio specific SW blocks.
- Implemented gripper component and integrated with other factory components. Stack: C++14, Docker, Boost, POCO, CMake, Bash, Python, PyTest, syslog, FPM, RPi.
- Investigated how to launch remote control for 6-axis robotic manipulators. Connected 3 vendors: Fanuc, ABB, Universal Robots. Stack: C++11, ROS, Python.

Rhonda Software May 2015 – May 2017
Software Engineer III (full-time) Vladivostok, Russian Federation

- Camera SDK development team member based on Ambarella SoC with ARM core.
- Supported peripheral domain as member of SDK sub-team. LKM and RTOS device drivers, EE and PCB review for customer's projects, FW burning tool features (Qt application).
- Implemented data transfer library: cross-platform (Windows, Linux, ThreadX) and multi-protocol (USB, UART, TCP). The library was used to test SDK functionality via RPC in QA lab and on customer's production lines. Stack: plain C, C++11, CMake, Python, CppUTest, Cppcheck, Doxygen, OS-abstraction layer.
- Prepared and provided boards bring-up for 5 customer's projects in electronics factories: Nanit, Fusar, Glide (Flextronics, TX), REVL (AQS, CA), Soloshot (Asia Optical, Shenzhen). EVT and DVT project phases.

Rhonda Software October 2012 – May 2015
Software Engineer I, II (full-time) Vladivostok, Russian Federation

- CSR plc contractor. Distributed support of embedded SW for ODM/OEM customers based on COACH SoC with MIPS core: Nikon, Pentax, Garmin, Samsung, Fujifilm, Ability. Support sites: China, Israel, Japan, Russia, South Korea, US.
- Solving of time critical project issues under customer's pressure. Resolved a number of MP-block SW problems.

- Supported peripheral domain as member of team. CMOS/CCD image sensors: drivers bug fixing and implementation of new capabilities. NV memory: FS bug fixing, NAND drivers timing optimizations. Display cluster: issues related to video output (LCD, HDMI). Volatile memory: DRAM performance measurement and timing optimizations. On-chip peripheral: BSP drivers (GPIO, ADC, PWM, RTC, SPI, I2C, UART, USB, function-specific HW units). PC-side applied SW: bug fixing and new features implementation for FW burning tool (windows forms).
- SoC SW trainings at CSR Israel: MATAM, Haifa.

Spider Pacific October 2010 – October 2012
Electrical Engineer (full-time) Vladivostok, Russian Federation

- Applied HW design and manufacturing.
- Designed and manufactured network PoE injector (PSE). Provided IEEE 802.3af full compatible solution. The injector was used in a number of computer network projects by customers. BOM: LTC4263 IC, AC/DC.
- Manufactured transformer-less stereo amplifier for headphones. BOM: vacuum tubes and audio-quality components.
- Designed prototype of mechanical-less manipulator. BOM: G-sensor, gyro sensor, Arduino, Wiring, USB, OP-amps.

EDUCATION

Moscow State University (Moscow, Russian Federation) 2018 – 2020
MBA, Technology Management. School of Public Administration.

Far Eastern State University (Vladivostok, Russian Federation) 2005 – 2010
Engineer, General Physics and Electronics. Institute of Physics and Information Technologies.

LANGUAGES

- Russian, native
- English, ability to hold conversation
- Japanese, elementary, alphabet, kanji

KEYWORDS

1-Wire, ADC, Ansible, Atomthreads, AVR, avr-gcc, BAT, Bash, Berkeley sockets, Boost, board bring-up, BSP, Buildroot, C, C++, CAF, ccache, CMake, Code Collaborator, Cppcheck, CppUTest, cross-compiler, customer support, Cygwin, DAC, DEB package, device driver, Docker, Doxygen, DVT, Eagle CAD, EE, Eigen, EVT, FAT, FileX, GCC, Gerber, Git, GitLab, G-sensor, gyro sensor, HW&SW co-design, IEEE 802.3af, I2C, IAR, image sensor, Jenkins, JIRA, Jom, JTAG, KiCAD, libpng, libusb, Linux, LKM, Make, Maxima, macOS, microcontroller, MIPS, Mind Maps, MinGW, NMake, NPI, OOP, OS2000, OSI, Perforce, PLC, POCO, POSIX, Proxxon, Python, PVS-Studio, PWM, Qt, QuickBuild, RAW Bayer, R&D, ReSharper C++, REST, Review Board, ROS, RS-232, RTOS, SPI, SoC, Sprint Layout, SQL, STL, SVN, TCP/IP, TeX, ThreadX, tmux, UART, UML, USB, Vagrant, Visual Studio, Win32, Windows, Winsock, zlib