Vladimir Yu. Ivanov

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Software (ML) Engineer, Moscow, RU

SUMMARY

• Proficient engineer with focus on 3 domains. Electrical Engineering, Computer Science, Machine Learning.
• Built practical experience in 3 areas. Consumer Electronics, Industrial IoT and Robotics, Self-Driving Cars.
• Helped to solve SW and HW problems for 4 types of companies. Outsource, Startup, Private, Public.

SKILLS

• **Languages**	C, C++, Python, Bash	• **Embedded**	MCU, RTOS, Schematics, Lab Equipment
• **Build Systems**	CMake (main), Make, Bazel	• **VCS, DVCS**	Git (main), Perforce, Subversion
• **Libraries**	STL, Boost, CAF, Poco	• **OS**	WinAPI, POSIX, ThreadX, KasperskyOS
• **Frameworks**	ROS, Qt	• **DevOps**	Docker, Vagrant, Ansible, SaltStack
• **Unit Testing**	CppUTest, GoogleTest	• **CI, CD**	QuickBuild, Jenkins, TeamCity, TFS
• **SAST**	Cppcheck, PVS-Studio	• **Data Analysis**	Jupyter, NumPy, Pandas, Seaborn, SQL
• **Comp. Science**	Algorithms, Design Patterns	• **ML, DL**	Scikit-learn, Tensorflow (Keras), PyTorch
• **Applied Math**	Lin. Algebra, Calculus, Stats	• **Comp. Vision**	OpenCV, CNN, Image Classification

EXPERIENCE

Kaspersky, Aprotech — February 2022 – present
Lead Software Engineer — Moscow, RU

· TBD

Yandex, Self-Driving Group — October 2019 – May 2021
Software Engineer — Moscow, RU

· Integrated orientation (IMU) and localization (RTK) device into electrical and network rover infrastructure (GeoHub).
· Implemented 2 features for GeoHub: power rails monitor (ADC driver, ROS node), programmatic config for IMU frame.
· Ported rootfs switcher from amd64 (PC) to arm64 (Jetson AGX Xavier). Covered 2 scenarios: Yandex.Rover, Xavier farm.
· Camera pipeline. Reduced logging size via ring buffer. Implemented 9 new status monitors and camera frames filter.
· Configured CI (TeamCity) for 2 third-party libs (ser2net, rtklib). Artifacts: deb packets (armhf, arm64, amd64).

Arrival Robotics — June 2017 – October 2019
Lead Software Engineer — St. Petersburg, RU

· Launched programmatic control for 4 industrial robot manipulators. Vendors: Kuka, Fanuc, ABB, Universal Robots.
· Contributed 1 feature to robotic simulator (Gazebo): control of scene objects via keyboard (moving, rotation).
· Implemented SW (REST) for robotic tool controller. Launched 3 kinds of tools: jaw gripper, glue gun, tool changer.
· Helped to prepare 2 demo days for investors at local lab (St. Petersburg, RU) and at robotic factory (Banbury, UK).
· Tech interview holding. Reviewed more than 10 candidates: embedded SW engineers, HW engineers, QA engineers.

Rhonda Software — October 2012 – May 2017
Software Engineer I, II, III — Vladivostok, RU

· Supported Camera-SDK (proprietary) components. Linux and RTOS device drivers. Firmware burning tool (Qt).
· Implemented raw data transceiver lib. Cross-platform: Windows, Linux, RTOS, multi-protocol: USB, UART, TCP.
· Performed products bring-up (EVT, DVT) in electronics plants for 5 customers: Nanit, Fusar, Glide, Revl, Soloshot.
· Supported SW of photo cameras. Drivers: CCD/CMOS, BSP, NAND, DRAM, LCD. Firmware burning tool (WinForms).
· Resolved a number of MP-blocking SW issues for 6 camera brands: Nikon, Pentax, Fujifilm, Samsung, Garmin, Ability.

Spider Pacific — October 2010 – October 2012
Electrical Engineer — Vladivostok, RU

· Designed HW of 4 device prototypes via end-to-end process: schematic (Eagle CAD), firmware (C99), PCBA.
· Utilized MCU (AVR), text LCD, accel-gyro sensors, vacuum tubes, op-amps, domain-specific IC and more.

EDUCATION

National University of Science and Technology «MISIS» 2020 – present
Institute of Information Technology and Computer Science Moscow, Russian Federation
M.Sc. Machine Learning. GPA: 3.78 out of 4.00

Far Eastern State University 2005 – 2010
Institute of Physics and Information Technology Vladivostok, Russian Federation
B.Sc. Electrical Engineering. GPA: 3.63 out of 4.00