Boris Vinogradov
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1 SOFTWARE DEVELOPER

10+ years of software development experience. Design and develop system and embedded software. Product integration and adaptation. Research in embedded, software and hardware complexes. Collaborate with Product Manager, Architects, and a talented group of engineers to build new voice features which add value to customers and to deliver a meaningful product.

2 QUALIFICATIONS

• Math in field linear algebra, statistics and probability theoria • System design and applied computer science • Creation system from scratch and build toolchains • Languages: C++, C, Rust, Python, Java, Matlab, Go, Shell • Libraries: STL, Boost, PyCurl, Tokio, Async-std, Tonic, GStreamer • Protocols: TPC/IP, GRPC, RTP, WebRTC • Formats: JSON, XML, Toml, Yaml • Markup language: Markdown, LaTeX• Build systems: Makefile, CMake, Cargo, Basel • Inter-language communication: MATLAB-Rust, Python-C • Logs/Metrics: Logger, Datadog • OS's: MacOS, Linux, Windows, FreeRTOS

3 LANGUAGES

• Russian (Native) • English (Upper Intermediate) • Spanish (Elementary) • Japan (Beginner)

4 EDUCATION AND COURCES

• Applied Information Science in Economics, Moscow Technological Institute, Bachelor Degree

5 SIGNIFICANT ACHIEVEMENTS AND PROJECTS

My Projects: • Source code GitHub repository – https://github.com/nisembedded
• My blog – https://nisembedded.github.io

Publications: D.N.Shloma, A.R. Egorov, B. G. Vinogradov, A. V. Protchenko — Improving of deployment system for special software products. Technika radiocommunication 1(24) 2015. ONIIP.

6 PROFESSIONAL EXPERIENCE

TK Elevator Aug 2024 - Present • Development elevator related functionality Languages: C, C++, Python, Shell

Twilio Mar 2022 – Feb 2024 Software Engineer – Media Services • Developed Twilio voice core server modules. • Developed internal metrics collection module. • Developed infrastructure connectivity for WebSocket-based clients. • Developed bidirectional media pipeline for media server. • Designing architecture and develop test suite for RTP connections. • Developed high-load test for media servers and other roles. • Developing Microservices in containerized environments based on k8s/AWS. • Testing and tuning services meet customer-facing SLAs. Languages: C, C++, Rust, Java, Python

Amazon/Ring NOV 2020 – MAR 2022 System software engineer • Designed, bootstrapped firmware for new products. • Created Architecture, Design and PoC for new product, • Ported C++17 and Boost on baremetal hardware, fixed compiler related issues on RISC-V 64 system. • Investigated firmware optimization and device capabilities. • Optimized video/voice network performance on main line products. • Improved video bandwidth adaptation algorithm. • Design and implement autotune algorithm. • Created series of production tests for autotune algorithm. Languages: C, C++, Python

EPAM NOV 2018 – NOV 2020 Senior software engineer • Setup and operate high throughput data pipelines to power the product. • Designed and developed communication software for audio/video calls with WebRTC. • Made internal Rust community more active and well-known: created demos and examples on how to use rust more efficiently, fixed issues with some internal admin tools (rust-based). Languages: C, C++, Rust, Python

Promwad Electronics Designs NOV 2017 – NOV 2018 Software engineer • Designed and developed embedded software for STB and smart TV. Languages: C,C++,Java, Rust, Python

Samsung Electronics / Samsung R&D FEB 2017 – AUG 2017 Software engineer • Designed and developed software solutions. • Technical analysis and code optimization for ARM architecture • Created ARM Trust Zone security system applications, system library • Created ARM Trust Zone ports for new devices Languages: C,C++

SymphonyTeleca JUL 2015 – JAN 2017 Principal software engineer • Designed and developed embedded systems. • Designed programming modules and Linux kernel developing. • Analysed of system solutions and provided integration with full support. • Developed system communication modules. • Developed code generation utility and document generation utility for electronic document system. • Developed Android for Auto bsp and support for CAN binding through bind service Languages: C,C++,Java, VB, Python

ONIIP OCT 2013-JUL 2015 Software engineer • Designed and developed internal high modular framework. • Designed and developed code generator for upper speed, high accuracy developing. • Designed communication protocols and high-level operations. • Designed and developed of GNU/Linux based and bare metal systems. • Developed communication modules and RPC subsystem.

• Developed system for transfer in high noise radio channels. • Developed remote deploy and software update system. Languages: C,C++, Python, Fortran, MATLAB, Scilab