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| **Grigory Sokolov** | | | | <https://www.linkedin.com/in/grigorysokolov>  <https://github.com/gregory-sokolov>  [grigory.v.sokolov@gmail.com](mailto:grigory.v.sokolov@gmail.com) |
| **Summary** | Excellent expertise in software development of applications and services on Windows and Unix-like systems. Top competence areas: statistics and monitoring, anti-malware and security, data-driven platforms, UI development, GSM core network protocols. System programming in C++. Strong algorithmic and mathematical background.   Great experience of working in international teams and with world-famous manufacturers of mobile phones, telecom equipment and security software. | | | |
| **Experience** | | | | |
|  | SiriusXM | | | |
| November 2024 - present | Position: | | Princial Software Engineer | |
| Satellite broadcast systems in SiriusXM - the best car radio in US and Canada. Currently – developing emulators and tools for the next generation radio module firmware.  Technologies: *C#, .Net, C++ 14/17, Visual Studio 2022, GitHub, Jira, CI/CD* | | | |
|  | SWTEC/TLM | | | |
| October 2021 – October 2024 | Position:  Project: | Princial Software Engineer  Module Emulators and Firmware Tools | | |
| Satellite broadcast infrastructure systems and tools for SiriusXM. Designed broadcast modelling and verification tools using latest C#/.Net on Windows and C++ 14/17 on Linux. Developed new features in media content services (pictures, weather, traffic etc.) for the SXM satellite protocol stack.  Technologies: *C#, .Net, C++ 14/17, Managed C++, Visual Studio 2019/2022, Linux, CMake, GitHub, Jira, CI/CD* | | | |
|  | Kaspersky Lab | | | |
| September 2018 – May 2021 | Position:  Project: | | Feature Founder  Global Transparency Initiative | |
| Reproducible Builds in scope of Global Transparency Initiative (GTI): proofing the binary executable file corresponds exactly to the source code it's been built from. Researched the problem of the identity of PE artefacts produced by consecutive builds from the same Visual C++ source code. Reversed and analyzed binaries with Dumpbin and IDA, summarized and documented more than 10 reasons of difference and how to overcome them. Designed and developed the tool in С# to automatically check and proove if two PE files (exe, dll or similar) are functionally identical with proper detailed logging and reporting.  Currently - creating the reproducible build infrastructure for the entire company.  Technologies: *Reverse engineering, Assembler x86/x64, Visual C++, compiler, linker, disassembler, IDA Pro, Dumpbin, PE format, PDB, C#, Serilog, Powershell, TFS, Git, CI/CD* | | | |
| January 2017 – August 2018 | Position:  Project: | | Front-End Developer  Kaspersky Infrastructure User Experience | |
| Dynamic and fast-growing project of User Experience Renovation in the anti-virus infrastructure services. Full stack software development: front-end on Angular 4, back-end on .Net with SQL Server, integration of Angular CLI with Visual Studio 2017 and IIS/MVC. The project constantly remains in active research and development: latest frameworks and tools, web-page design, UI layouts, graphics and workflow.  Technologies: *Angular 4, Typescript, Npm, Webpack, Kendo UI, HTML5/CSS3, MVC 5, C#, Entity Framework, IIS, MS SQL Server, Visual Studio 2017, Git* | | | |
| September 2012 – December 2016 | Position:  Project: | | Senior Software Engineer  Anti-virus software updates, statistics and reporting | |
| Designed and developed business intelligence system of statistics and analytical reporting on anti-virus update process. Implemented back-end services in C# to collect stream events from various sources and transform them with ETL algorithms into no-SQL storage. Mastered Splunk to index and search over large volumes of data, composed and optimized queries for statistical calculations. Developed monitoring subsystem as Web application using Angular, Bootstrap, HTML5, .Net MVC 5. The system improved identification of problem areas by 3 times, which helped to reduce costs of product updates by 15% and increase update delivery time for major components by up to 50%.  Technologies: *C#, .Net, MVC 5, IIS, AngularJS, Bootstrap 3, Javascript, Splunk Enterprise, Sideview Utils, Visual Studio 2013/2015, MS SQL Server, TFS* | | | |
| September 2010 – September 2012 | Position:  Project: | | C++ Developer  Anti-virus software updates, delivery and replication | |
| Developed a distributed system which replicates anti-virus software updates from the headquarters to download servers all over the world. Implemented multistreaming upload feature for heterogeneous environment using rsync as a transport and WinAPI multithreading/IPC in the host application, increased the upload speed to distant servers by 4 times. Optimized performance of the incoming request processing module (C++ algorithms, T-SQL queries, indexes), made it 3 times more responsive. Tuned up SQL server administration infrastructure: regular database backups and defragmentation jobs. This project provided the company with fast and reliable solution in the business-critical software update process.  Technologies: *Visual C++, STL, WinAPI/MFC, COM, T-SQL, OLE DB, MS SQL Server 2008, cwRsync, FreeBSD, Unix shell scripting, Visual Studio 2010, TFS 2010, UML, Enterprise Architect 8* | | | |
|  | Teleca | | | |
| October 2008 – August 2010 | Customer:  Position:  Project: | | Sony Ericsson, SONY  Senior Developer  XPERIA-series mobile phones | |
| Developed several key features: an application that extends task management in Windows Mobile and a set of services that enable and configure GPS assistance. Analyzed requirements, created and presented prototypes to customers in SONY, designed UI: screen layouts, event flow, title semantics, UI consistency. Performed full feature development with Visual Studio, including class design, coding, localization and deployment. Worked with Windows Mobile SDK, GPS modem driver API, AGPS and SUPL protocol, multithreading with WinCE API, algorithms and data structures in STL and MFC. Contributed to the success story of XPERIA X2 from early stages to the production release.  Technologies: *Windows Mobile, WM SDK 6.1/6.5, AGPS, SUPL, Visual C++, STL, MFC, WinCE API, Platform Builder, UI design, UML, ClearCase, ClearQuest* | | | |
| January 2008 – September 2008 | Customer:  Position:  Project: | | Sony Ericsson, Motorola  Team Lead  PC connectivity solution | |
| Managed a development team of 6 engineers, supervised pre-studies, design proposals, implementation approaches and code reviews. Coordinated development and completed significant product improvements: Outlook and Lotus Notes tag extensions on PC side for a more accurate synchronization of contacts and e-mail, optimization of the synchronization database, centralization of error handling in several compact modules. Formalized and improved defect handling process, automated and simplified the evaluation of the defect statistics in the team. Composed a training course over the project and successfully mentored 4 junior engineers.  Technologies: *Windows XP/Vista, Visual C++, Win32 API, COM, ATL, MFC, SyncML, Outlook, MAPI, Lotus Notes, Access, vCard/vCalendar, ClearCase, Bugzilla* | | | |
| December 2006 – December 2007 | Customer:  Position:  Project: | | Sony Ericsson, Motorola  Senior Developer  PC connectivity solution | |
| PC connectivity solution, a suite of Windows applications to synchronize mobile phone content with a computer. Developed COM components to enable phone synchronization with new PIM applications appeared in Windows Vista (Windows Contacts and Calendar). Designed and implemented packet fragmentation modules of the SyncML protocol. Customized vCard/vCalendar parsers to support changes in new phones. Analyzed and corrected defects.  Technologies: *Windows XP/Vista, Visual C++, Win32 API, COM, ATL, MFC, SyncML, Outlook, MAPI, Lotus Notes, Access, vCard/vCalendar, UML, ClearCase, Bugzilla* | | | |
|  | Mera Networks | | | |
| September 2005 – December 2006 | Customer:  Position:  Project: | | Ericsson AB  Software Developer  Telecom Signaling Platform, GSM core network | |
| Developed Network Redundancy system installed on geographically duplicated GSM nodes with SS7 protocol stack, CORBA middleware with C++/Java API and servlet-based web interface. Created C++ tools which enabled SS7 statistics and alarm services to the platform management and application layers, adapted them to support Sigtran protocol. Significantly improved CppUnit test coverage with Purecov and memory handling with Purify, created detailed documentation. Raised the component code quality to a higher rank in the enterprise software quality scale.  Technologies: *Solaris, Linux, GSM, SS7, Sigtran, C++, Unix shell (bash/tcsh), Java, J2SE, CORBA, UML, ClearCase, Rational Pure Tools, CppUnit, Doxygen* | | | |
| **Education** | Nizhny Novgorod Technical University, 2007  Computer Science, Master  Computer engineering, programming, OS internals, networks, dynamic system control, optimization methods, probability theory, algorithms, mathematics | | | |
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