# **Alex Khmelevtsov**

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## Summary

* 15+ years of real-world experience in developing complex enterprise systems using Microsoft Technologies
* Expertise in C# .NET programming and tools including most recent versions
* Proficiency in full life-cycle development, from design through mature system status
* Strong background and extensive experience in object oriented analysis and design
* Great experience in User Interface design, completed several successful UI projects for Windows and Web
* Solid experience in designing and working with n-tier architectures along with experience with service-oriented architectures including microservices
* Firm understanding and long-term usage of the best software development practices and techniques that help create high-quality code
* Recent successful experience in re-architecture and refactoring legacy applications to robust, well-designed, maintainable and testable solutions
* Solid hands-on experience in relational database design, development and implementation with focus on performance optimization
* Outstanding troubleshooting skills
* Proven abilities to quickly learn new concepts and software, and adapt quickly to an existing, complex environment
* Strong interpersonal and communication skills

## Technical Profile

* ***Operating systems and frameworks*:** Windows 10/8/7/XP/2000/NT/9.x/3.1, Windows Server 2008/2003, .NET 4.5/4.0/3.5/3/2/1.x, .NET Core, Windows Mobile 6, MS DOS 6
* ***Languages***: C# 5/4/3/2, Visual Basic .NET, X++, VBScript, VBA, Visual Basic 6/5/4, C/C++, Fortran, Assembler
* ***IDEs***: MS Visual Studio 2015/2013/2010/2008/2005/2003/6/4, Visual Studio Tools for Office (VSTO), SQL Server Management Studio 2008/2005
* ***Windows UI development***: Windows Presentation Foundation (WPF), MVVM, PRISM, XAML, Telerik UI for WPF, Windows Forms, Infragistics UI Controls for Windows, DevComponents DotNetBar for Windows Forms, ActiveX
* ***Backend development:*** Multi-threading, Docker, TPL, Windows Communication Foundation (WCF), Windows Web Services, SOAP, RESTful, MEF, MS Sync, RabbitMQ, OWIN, Katana, NancyFX, EasyNetQ, TopShelf, Windows Workflow Foundation (WF), Enterprise library, Windows scripting, Active Directory, COM, DCOM, OLE Automation, MTS/COM+, MSMQ, Windows 32 SDK
* ***Database Development***: SQL Server 2012/2008/2005/2000/7/6.5, T-SQL (Stored Procedures, Triggers, Views, Functions), SQL Server 2008/2005 Reporting Services (SSRS), SQL Server 2008/2005 Integration Services (SSIS), LINQ to SQL, ADO.NET Entity Framework (EF) 6/4, ADO.NET 2.0/1.1, ADO 2.x, MS Access 2003/2002/97, DAO 3.x, Oracle 9/8, PL-SQL
* ***Web Development***: HTML 5/4/3, CSS3, Bootstrap, ASP.NET MVC 5/3, ASP.NET SignalR, ASP.NET Web API 2, Telerik Kendo UI, AngularJS, ASP.NET Web Forms, jQuery, TypeScript, JavaScript, AJAX, CSS, JSON, XML/XSLT/XSD/XPath, VBScript, HTTP, DHTML, DOM, Silverlight 3, IIS 7.5/6/3, Telerik RadControls, ComponentArt Web.UI for ASP.NET AJAX, ASP
* ***Source Code Management***: Git, GitHub, Tortoise SVN, Team Foundation Server (TFS), MS Visual Source Safe 6/2005 (VSS), SourceGear Vault 3, SourceGear Fortress
* ***Bug/Issue Tracking:*** JIRA, Sifter, Team Foundation Server (TFS), Issue Tracker, Bugzilla
* ***Unit Testing and Mocking Frameworks:*** NUnit, Rhino Mocks, JustMock
* ***ERP and enterprise software development:*** MS Dynamics AX 2009 for Retail R1/ R2, MorphX, X++, SharePoint 2010/2007, InfoPath 2007, MS Access 2003/2002/97
* ***Development techniques/practices:*** OOA/OOD, SDLC, Agile Development, SCRUM, Test-Driven Development (TDD), client/server, n-tier, design patterns, MVVM, MVP, MVC, UML, Unit Testing, IoC, SOLID, clean code, dependency injection

**Employment History**

[TD](http://www.bioconnect.com) Canada Trust Toronto, Jun 17 - present

***Senior .NET Consultant (contract role)***

* Working on new releases of RMI (Role Management Interface), in-house Web application built with ASP.NET MVC 5 and EF6
* Designed and implemented RMI mail service which handles various types of email templates and email sending scenarios
* The email service compiles Razor templates on the fly that gives administrators ability to modify static content without service rebuilt
* Designed and implemented custom workflow engine using State Machine pattern
* The workflow design allows to realize complex workflow scenarios and test them in separation of real business logic
* Developed several ASP.NET web pages using Razor, jQuery, Ajax, CSS and Materialize CSS with rich user experience and optimized backend performance
* Intergrated SSRS Report Viewer into the portal and provided drill-down reports
* Added centralized error handling and logging, custom error page

*Tools:* Windows 7/Server 2008, MS .NET Framework 4.5/4.0, MS Visual Studio 2017/2015, TFS, C#, LINQ, Entity Framework 6, JavaScript, jQuery, Razor, Materialize CSS, Bootstrap, SQL Server 2008/2014, T-SQL, MS SQL Server Management Studio

[BioConnect](http://www.bioconnect.com) Oakville, Toronto, Aug 14 - Apr 17

***Fullstack .NET Consultant (contract role)***

* Built an entire WPF client using MVVM pattern and dependency injection in agile way
* Created clean loose-coupled architecture that allowed to complete many business requests for the application extension and reshaping
* Built Setup Assistant as a wizard-style addition to WPF client for friction-less application setup
* Used mocked data models on initial UI design stages for earlier detecting of issues and inconsistences
* Built UI controls for real-time user interaction with biometric readers using multi-threading and COM interop
* Built a bunch of advanced UI controls to incorporate a desperate brand of biometric readers (Digitus) into the application
* Refactored code and extracted a WPF UI component from the application to embed it into third-party Windows Forms application (Software House)
* Enable WPF client to receive and visualize events from services in loosely coupled way that allowed later to switch underlaying technology from SignalR to EasyNetQ/RabbitMQ in version 4.0
* Re-styled WPF client according to design documents for BioConnect 4.0 release
* Built new architecture for integration with heterogeneous third-party access control management (ACM) systems that helped integrate many of them in a short time
* Significantly improved users’ data synchronization between ACMs and BioConnect database that raised number of users from 200 for average customer to 200K – 4 billion for large customers
* Built new data access layer (DAL) based on ADO.NET and SQL Server stored procedures to improve backend performance
* Built multi-threaded job dispatcher with optimized performance that allowed to essentially increase number of simultaneously working devices
* Refactored monolithic backend into configurable SOA solution consisting of 6 microservices
* Created support library to abstract away technology specific details of direct inter-services communication (WCF, Web API, NancyFX) as well as pub/sub messaging pattern (EasyNetQ/RabbitMQ)
* Built Service Manager as ASP.NET MVC 5 application with Telerik Kendo UI/AngularJS and SignalR for real-time notifications
* Programmed MVC/Web API controllers, data models, SignalR Hub on server side in C# as well as KendoUI user controls, AngularJS and SignalR client side JavaScript

*Tools:* Windows 10/8/7/Server 2008, MS .NET Framework 4.5/4.0, MS Visual Studio 2015/2013, GitHub, C#, LINQ, Entity Framework 4, WCF, WPF, MVVM, Telerik UI Controls for WPF, Web API 2, Kendo UI, JavaScript, AngularJS, Bootstrap, MS Sync, SQL Server 2008/2012, T-SQL, MS SQL Server Management Studio, NancyFx, TopShelf, EasyNetQ/RabbitMQ, RestSharp

[Citi Canada Technology Services](http://www.citigroup.com/citi/) Mississauga, May 13- Jul 14

***Sr. .NET Developer (contract)***

* Provided analysis, designed and fully implemented Risk Limit Editor feature for Spirit 2.0 application using WPF, Prism, MEF and MVVM pattern
* Created working UI prototype with mock data and converted it later to working application
* Designed UI based on user’s requirements, created views, view models, data models, WCF service operation and data contracts, ADO.NET and EF server code
* Used best practices for UI design and implementation, WPF code standards for client input validation
* Provided client validations against Active Directory
* For the feature, designed SQL Server tables, stored procedures, views, functions and triggers.
* Involved in software development projects for migration of complex Excel/VBA application to WPF/SSRS
* Analyzed legacy VBA code and migrated functionality from Excel worksheets to WPF, including SQL server development, WPF UI development and integration with existing application and custom frameworks
* Designed and developed transition to multi-grid presentation applying C# generics for greater code reuse
* Created Unit Tests in VS using Rhino Mocks library
* Migrated complex financial Excel worksheets to SSRS, converting existing Excel formulas, and VBA code to SSRS VB.NET code and SSRS datasets
* Consumed WCF service in SSRS to provide scheduled report for email users

*Tools:* Windows 7/Server 2008, MS .NET Framework 4.0, MS Visual Studio Team System 2010, TFS, Tortoise SVN, C#, VBA, WCF, WPF, MVVM, Prism, LINQ to Entities, Entity Framework 4, Web Services, XML, SQL Server 2008, T-SQL, MS SQL Server Management Studio

[LS travel retail North America](http://www.lstrna.com/) Toronto, May 12- Mar 13

***Sr. IT Developer/Systems Analyst (contract)***

* Worked as .NET developer/analyst on projects related to company’s upgrade to MS Dynamics AX R2
* Provided code migration to AX R2 for several customization projects
* Conducted impact analysis for migration projects, resolved issues with version-to-version code incompatibility
* Investigated and resolved problems of high complexity
* Developed customizations for Retail Headquarters, Retail Scheduler, Inventory Management, General Ledger, Accounts Payable, Bank, and other modules.
* Implemented fixes, enhancements, and modifications within the MS Dynamics AX 2009 utilizing AX configuration and customization tools, SQL Server, and the .NET framework
* Programmed in X++ in MorphX integrated development environment
* Created C# classes and integrated them with AX as needed
* Developed the email and FTP file upload feature for Scheduler for FOH project, coded in C#, tested, and deployed to all AX environments
* Updated ASP.NET Web Forms for Enterprise Portal (EP) SharePoint application
* Resolved issues with the handheld device, SSRS and internal AX reporting
* Created WCF web service for handheld device utilizing LINQ to Entities
* Created and coded X++ classes for BizTalk integration
* Used SQL Server Management Studio to locate issues with AX data directly in SQL Server
* Resolved performance issues, optimized X++ code, tuned AX queries in SQL Server
* Redeveloped T-SQL queries and stored procedures

*Tools:* Windows 7/Server 2008, MS Dynamics AX 2009 Retail, MorphX, X++, Windows Mobile 6, MS .NET Framework 4.0/3.5//2.0, MS Visual Studio Team System 2010/2008, TFS, C#, ASP.NET 3.5/2, AJAX, JavaScript, WCF, LINQ to Entities, Entity Framework 4, Web Services, XML, IIS 7.5/6, SQL Server 2008, T-SQL, MS SQL Server CE, SQL Server Management Studio, SharePoint 2010, SSRS, FTP

[Humber River Regional Hospital](http://www.hrrh.ca/home) Toronto, Jan 12-Apr 12

***Sr. NET Developer (contract)***

* Updated a suite of .NET applications integrated with MEDITECH system, as part of Humber River’s upgrade to MEDITECH 6.0
* Upgraded MMIS, Windows Mobile inventory management solution, to meet MEDITECH 6.0 requirements
* Developed T-SQL scripts for MMIS database migration
* Replaced MMIS DAL to accommodate changes for the handheld device upload file
* Fixed problems with MMIS mobile client written in VB.NET
* Created WCF web service for MMIS that used LINQ to Entities to provide the data
* Updated MMIS Data Management Windows Form application with embedded SSRS reports
* Created new and updated existing Web Forms for Anesthetists Schedule ASP.NET application
* Developed SSIS package to replace legacy VB code and stored procedures for BPIS ETL process
* Developed AutoHotkey scripts for automated data entry to MEDITECH 6.0

*Tools:* Windows 7/Vista/XP/2003 IIS 6/7, Windows Mobile 6, MS .NET Framework 4.0/3.5//2.0, MS Visual Studio Team System 2010/2008, TFS, VB.NET, ASP.NET 4.0/3.5, AJAX, JavaScript, DHTML, CSS, jQuery, WCF, Web Services, LINQ to Entities, Entity Framework 4, Enterprise Library, SQL Server 2008, MS Sync, MS SQL Server CE, SQL Server Management Studio, XML, SSIS, SSRS

[SCI Marketview](http://www.marketview360.com/) Markham, Feb 11-Nov 11

***Sr. NET Developer (contract)***

* Played essential role in ASP.NET development for a business-critical project that brought a revised version of LMT (Lead Management Tool)
* The version contained a significant number of enhancements and functional improvements based on feedback from SCI Staff, GM Representatives and the Dealer base
* Contributed to migration from .NET 1.1 to .Net 4.0, resolved issues with porting C# and VB.NET code
* Provided cross-browser compatibility and redeveloped legacy AJAX calls using JQuery
* Analyzed, tested and implemented changes of high complexity
* Created WCF services to feed UI controls on client using JQuery and JSON
* Debugged JavaScript in IE and Firefox
* Redeveloped HTML layout for many pages manually to integrate new UI elements and enhance the existing ones
* Revised existing ASP.Net Web Forms with code behind classes in C#
* Applied modification to proprietary framework libraries written in VB.NET
* Created Vehicle selection, Inventory Vehicle Search user controls using ComponentArt Web.UI ASP.Net AJAX
* Provided migration and made modifications for web pages with Telerik RadControls
* Refactored existing C# code to improve its maintainability and reusability
* Developed and maintained T-SQL stored procedures
* Developed requests to SQL Server databases using EF 4

*Tools:* Windows 7/XP/2003, MS .NET Framework 4.0/3.5//2.0, IIS 7/6, MS Visual Studio 2010/2008/2003, TFS, SourceGear Fortress, Visual C#, VB.NET, .NET 3.5/2.0, ASP.NET 4.0/3.5, ASP.NET MVC 3, WCF, ASP.NET Web Services, ASP .NET Web Forms, LINQ to Entities, Entity Framework 4, SQL Server 2008, T-SQL, SQL Server Management Studio, Enterprise Library, SSRS, JavaScript, HTML, DHTML, DHTML, CSS, jQuery, Telerik RadControls, ComponentArt Web.UI, ASP.Net AJAX , XML

[SQI Diagnostics Inc.](http://www.sqidiagnostics.com/) Etobicoke, Jun 10-Jan 11

***.NET Developer***

* Software development projects for SQiDworks platform, automation of the entire immunoassay process of SQiDworks Diagnostics System
* Completed projects aimed to adding a flexible customer billing to the System
* Completed PPA project that enabled features pertaining to the billing process
* Provided integration with HL7 messaging components
* Developed, implemented and integrated Windows Forms to the system as per PPA requirements
* Used MVP (Model View Presenter) for Windows Forms design
* Modeled the database, created database tables and T-SQL stored procedures to support the data extraction process
* Created local WCF service for billing data extraction using LINQ to Entities and hosted by a Windows Service
* Designed and implemented WPF client for billing management using MVVM pattern
* Translated system requirements into software architecture that facilitated component reusability and unit testing
* Developed Unit Testing projects in Visual Studio with NMock object mocking library
* Coded in C# 2.0, 4.0 using various Dot NET and third-party libraries including encryption, multi-threading, Excel Automation, OLE DB, COM interop, etc.

*Tools:* Windows XP/2003, .NET Framework 4/3.5//2.0, MS Visual Studio 2010/2005, Visual C# .NET 4/ 3.5/2, C, TFS, Windows Forms, DevExpress, WPF, WCF, LINQ, Entity Framework, Enterprise Library, SSIS, SSRS, SQL Server 2008, T-SQL, XML/XSD/XSLT, NMock, multi-threading, XML/XSD/XSLT

[Mount Knowledge Inc.](http://www.mountknowledge.com/) Toronto, Aug 09-Apr 10

***.NET Programmer/Analyst***

* Analyzed functional requirements and provided architectural design for the new software product
* Provided ability to configure the product for consumption of either local or web content
* Modeled and implemented SQL Server database for the content
* Designed and created tables, views and T-SQL stored procedures
* Designed and implemented WCF service for generation of various learning exercises and tests from randomly selected content elements
* Built Windows Forms client as a web-like application using the WebBrowser control and DotNetBar for WinForms
* Created Silverlight client as a working prototype of secondary presentation interface
* Used XSLT for rendering HTML and XAML markups from the XML returned by the service
* Designed and programmed InfoPath forms for content developers and published them on the company’s SharePoint site
* Incorporated InfoPath Forms in data collect/approve workflow with MS WF
* Created and programmed workflows for the content development process
* Developed ASP.NET Web Part for the content statistics data and deployed it to the SharePoint site
* Re-skinned a company’s WinForms product with a new WPF-based animated layout keeping the existing WinForms working inside the dedicated controls

*Tools:* Windows 2003 Server/XP, IIS 6.0, MS .NET Framework 4.0/3.5/2.0, MS Visual Studio 2010/2008/2005, C#, Windows Forms, multi-threading, DevComponents DotNetBar for Windows Forms, WPF, WCF, WF, JavaScript, DHTML, CSS, ASP.NET Web Services, SQL Server 2005, T-SQL, HTML, DHTML, CSS, XML/XSD/XSLT, regular expressions, Silverlight 3, Expression Blend, Crystal Reports, WSS 3.0, Web Parts, InfoPath 2007

[DealerTrack Canada](http://www.dealertrack.ca/) Mississauga, Aug 07-Apr 09

***.NET Developer***

* Successfully completed more than 60 change requests for customers, major Canadian banks and financial institutions
* Projects included user interface modifications, financial calculations, database structure and SQL requests, XML-based data communications
* Maintained and enhanced DealerAccess Portal, a large Windows Forms application containing code customizations for more than 30 Canadian lenders
* Provided analysis of proposed business changes on the application, in terms of development effort and processing
* Performed modifications and new development to DealerAdmin and LenderAdmin, company’s administrative tools implemented as ASP.NET applications
* Coded and tested modifications for the data layer that utilized ASP.NET Web Services and HTTP
* Updated and developed data layer interfacing SQL Server and Oracle 9I databases using T-SQL and PL/SQL
* Performed unit testing and participated in system testing
* Provided resolution to problems arising in the production version of the software
* Worked closely with QA to resolve and eliminate defects quickly
* Interacted with business analysts in clarifying the requirements
* Helped maintain and enhance build automation and release delivery

*Tools:* Windows 2003 Server, MS .NET Framework 2.0/1.1, MS Visual Studio 2005/2003, Visual C# .NET, Windows Forms, multi-threading, ASP.NET 3.5/2.0, IIS 6.0, ASP .NET Web Services, WSS 3.0, XML/XSD/XSLT, SSRS, JavaScript, HTML, DHTML, CSS, Infragistics Windows controls, SQL Server 2005, T-SQL, Oracle 9i, PL/SQL

YS Corp. \_ Obninsk, Oct 04-May 07

***Software Developer***

* Worked on manufacturing ERP solutions as a Developer /Analyst
* Development projects included systems integration and migration to .NET
* Involved in gathering and analyzing business requirements
* Provided software design specifications based upon functional requirements
* Programmed in C#, VB.NET, and T-SQL, including stored procedures, views, and triggers.
* Created reports using SQL Server 2005 reporting services
* Collaborated with other developers in creating solutions that meet business requirements

*Tools:* Windows 2003 Server, MS .NET Framework 1.1, Axapta 3.0, MS Visual Studio 2003, C#, VB.NET, Windows Forms, multi-threading, ASP.NET Web Services, SQL Server 2000/2005,T-SQL, SSIS, MS Access 2002/2003, MS Excel 2003, XML/XSD/XSLT, SQL Server 2005 reporting services, COM+, VBA, MS Visio 2003/2005

[Dell EMEA IT](http://www.dell.ru/) Moscow, Apr 02-Aug 04

***.NET Developer***

* Worked on outsourcing projects as a member of Dell’s Moscow offshore software development team
* Designed and developed software modules for PDS Global Online project that provided integration of globally distributed databases over the Internet
* Reported by phone and e-mail to the project manager of Dell’s headquarters in Ireland
* Prepared code specification documentation from requirements documents
* Enhanced technical architecture through proposals based on business needs and new technologies
* Worked on Product Configurator project, migration from VB6 to ASP.NET.
* Implemented and tested software modules

*Tools:* Windows Server 2003, MS .NET Framework 1.1, Visual Studio 2003/ .NET, C#, Windows Forms, VB.NET, XML/XSD/XSLT, VB6, ASP.NET, ASP.NET Web Services, IIS 6.0, SQL Server 2000, T-SQL, XML/XSD/XSLT, Oracle 9i

[JAWZ Inc](http://www.jawstech.com/). Toronto, Nov 01-Apr 02

***Software Developer***

Worked on the new release of iControlNet 5.0, the software system that provided educational class with consistent Windows-based desktop for simplified network and resource management

*Tools:*  Windows 2000/NT 4/9.x, Visual Basic 6, ActiveX, COM, Access 97, DAO, Win 32 API, MS SourceSafe

[Financial Models Company Inc. (FMC)](http://www.fmco.com/) Mississauga, Aug 00-Oct 01

***Software Developer***

* Designed and implemented VC++ and VB components for a new release of Pacer, the multi-currency portfolio management system for securities trading management and settlement in major international markets

*Tools:*  Windows 2000, Visual C++ 6 with ATL, Visual Basic 6 (VB6), ActiveX, COM, Rational Rose, XML, FORTRAN

[Fastrak Systems Inc](https://www.fastraksys.com/home.asp) Toronto, May 99-Jun 00

***Programmer/Analyst***

* Worked on company’s in-house Employee Stock Options and Compensation management and planning software

*Tools:*  Windows NT 4, Visual Basic 6(VB6), VBA, ActiveX, COM, SQL Server 6.5/7, T-SQL, Access/Excel 97, DAO, ADO, RDO, Win 32 multi-language support, Crystal Reports, HTML, VBScript, ASP, JavaScript, DHTML, Visual Interdev, IIS 3.0

[Eridan Ltd](http://www.eridan.mega.ru/) Obninsk, Mar 93-Dec 98

***Software Developer***

Software design and development for custom engineered equipment and instruments for monitoring and controlling of atmospheric emissions

*Tools:*  MS Windows NT/95/3.1, Visual Basic 5/4, Visual C++ 5/4.2 with MFC, Win32, multi-threading, Access 2/97, DAO, MS FORTRAN Power Station 4.0, Borland C++ 4.0, OWL 2, MS C, CodeBase 4.5 DLL for Windows

**Education**

Bachelor’s and Master’s degree in Electrical Engineering, Moscow Institute of Geodesy, Aerial Surveying and Cartography, evaluated by World Education Services ([WES](http://www.wes.org))