



Andrei Bychko

Senior/Lead Software Engineer

([LinkedIn profile](#))

Summary

15+ years' enterprise experience in software development using different programming languages (mostly C#/.NET and SQL).

Strong knowledge of **Design Patterns, OOP, SOLID**. Fan of **TDD, DI/IoC, DRY, KISS** and **YAGNI**. Ability to **read/understand other's code** and **refactor** it.

Project Management and **Agile** knowledge and hands-on experience. Led own project for ~9 months and managed to successfully finish it despite suddenly doubled scope. Ability to collect requirements, write comprehensive specifications, design data models and algorithms, manage risks, discuss all this with customers.

Languages: **English B2** (both speaking and writing), Russian and Belarusian (both native ones)

Personal traits: self-confidence, persistence, sociability, inquisitiveness, team and lead working experience (code cross-review, mentoring, interviewing, etc.).

I can

- read email threads and standards to collect and validate requirements
- design data models and algorithms to match requirements
- write comprehensive specifications to describe data models and algorithms
- write code to implement specified features
- write tests of different types (unit, integration, etc.) to cover written code
- refactor existing code, debug it and bugfix
- manage whole project (WBS, project plan, risks)
- increase level of quality (tests, GIT history, maintainability, dependencies)

- conjugate different technologies and languages within single project (my own experience: C# + VB.NET, C# + C++, Delphi + assembler, Delphi + OpenGL, .Net + OpenGL, .Net + WinAPI, .Net + COM, .Net + CUDA)
- introduce and facilitate Agile rituals and practices
- improve work processes and introduce new approaches and best practices
- present all described above to colleagues or customers
- work with team (mentoring, technical interviewing, 1:1, conflicts mitigation, etc.)

I want

- diverse challenging tasks (I'll be happy if my work allows me to do all listed above)
- work in office +coffee

I do not want

- do 100% the same for a long time (for example, just to write tests for 3-6 months)
- justify someone's previously made decisions which have been done without any justification or be responsible for them
- deal with legacy code without possibility to rewrite it
- waste time on getting access/permissions/credentials to resources, which are required to complete everyday work tasks
- I'm not skilled in DevOps (CI/CD) and it seems too boring for me

Knowledge and skills

Programming languages

- **C#, SQL** (advanced/expert, huge enterprise experience)
- HTML+JavaScript, Assembler, Delphi, Visual Basic, C++ (novice/advanced, small enterprise experience)
- LISP, VHDL (haven't used for ages)

Technologies and frameworks

- **.NET versions: Framework 1.1-4.8, Core 1.0-3.1, Standard 1.1-2.1**
- Databases and ORMs: **MS SQL Server, ODBC, Entity Framework**
- Office technologies: MS Interops, OpenXML
- UI: WinAPI, Windows Forms, DevExpress, WPF, ASP.NET WebForms
- Network: WinSock, WCF, SOAP
- CI/CD: NANT, CruiseControl.NET, Jenkins, Azure DevOps
- File formats: XML, JSON, ZIP, XLS, XLSX, INI, CSV
- Graphics: GDI (WinAPI), GDI+ (System.Drawing), OpenGL
- Clouds: AWS (S3, EC2, etc.), Azure DevOps (used only)

- Other: log4net, RegEx, CUDA, Map+Reduce (BigData), MiniSAT, Solr, WorkflowCore

Tools

- MS Visual Studio 2003 – 2022
- JetBrains ReSharper, dotPeek, dotCover, dotTrace, dotMemory
- MS SQL Management Studio 2000 – 18
- SVCs and Task tracking: **GIT**, SVN, **Atlassian JIRA**, Rational Clear Case+Clear Quest, Perforce, MyInnovator, Mantiss
- Fiddler
- Postman
- TASM, FASM, Olly Debugger, Bochs
- Borland Delphi 6, 7, 2008

Management

- PMI
- Agile

Education

- **Master's degree of computer science** (BSUIR, 2015-2018), + unfinished PhD postgraduate studies.
- Belarusian State University of Informatics and Radioelectronics, Department of Computer Systems and Networks (2006 - 2010).
- Minsk State Higher Radioengineering College, Department of Programming (2002 - 2006).

Experience

April 2023 – now (Senior Software Engineer at ARAS Corp)

Project: ARAS Innovator PLM, again.

Responsibility: implement new features and bugfix new ones, development only.

Tools and technologies: ...

December 2022 – March 2023 (Lead Software Engineer at UAB "ITechArt Group LT")

Project: Deal Cloud, Net6-based fintech solution.

Responsibility: bugfix, code refactoring, minor architecture tasks.

Tools and technologies: MS Visual Studio 2022, GIT, Notepad++, Entity Framework.

June 2021 – December 2022 (Senior Software Engineer at UAB "EPAM SISTEMOS" Lithuania)

Projects (by customer company names): thinkFolio (support huge legacy VB+C# finance solution made of BBOM), Woven (rewrite legacy MEF+VB+C# .NET Framework solution to .NET 6 with Kafka), Boden (support microservice solution with many legacy parts and partially broken CI/CD).

Responsibility: bugfix, code refactoring, AWS + Terraform CI/CD-related activities.

Tools and technologies: MS Visual Studio 2019-2022, GIT, Notepad++, AWS.

January 2021 – March 2021 (Lead Software Engineer at Godel Technologies Europe)

Projects: Godel Corporate Portal (inner project).

Responsibility: Editing of RabbitMQ configurations, minor code improvements.

Tools and technologies: MS Visual Studio 2019, GIT, Notepad++, RabbitMQ.

February 2015 – December 2020 (Senior Software Engineer at SCAND > ARAS Corp. Development Center)

Projects: ARAS Innovator. PLM system, which is used mostly by manufacturers of aircraft and ground vehicles.

Responsibility:

1. transform mail correspondence from customers into requirements,
2. transform requirements into clear use-cases and architecture design,
3. then implement it and, in final,
4. refactor code
5. and cover it with unit tests.

Developed modules:

1. Content Modelling Framework (xFMEA-like hierarchical documents with ability to automatic data migration),

2. Solr-based full-text search,
3. MiniSAT-based variants management configurator,
4. project management and design of Graph navigation component,
5. data synchronization subsystem,
6. workflow subsystem.

Tools and technologies: MS Word/Excel/PowerPoint/Visio, MS Visual Studio 2012–2017, GIT, ARAS Innovator, .NET 4.5, ASP WebForms, javascript, NUnit, MSBuild, NAnt, CCNet, Jenkins.

August 2013 – September 2014 (Middle Software Engineer at Visutech Systems)

Projects: EtherCAT Studio. Configuration and analysis subsystem of SCADA software.

Responsibility: Development and refactoring of complex GUI components and visualization system, storage mechanisms and processing logic and multi-threading intercommunication.

Tools and technologies: MS Visual Studio 2006-2012, Tortoise SVN, Mantis Bug Tracker, .NET 2.0, WinForms, managed&unmanaged C++.

November 2008 – August 2013 (Middle Software Engineer at MODIS-M)

Projects: CodeX.Utility. Common class and components library.

Responsibility: Development of GUI components for layout maintenance and DevExpress GridView extension (clipboard routines and data export into MS Excel spreadsheets). Development of logging subsystem: log4net appender, logger extensions and- log viewer control.

Tools and technologies: MS Visual Studio 2010, MS SQL Server 2010, JIRA, Perforce, .NET 4.0, WinForms, DevExpress.

Projects: CodeX.Reference. System of maintenance and updates of distributed related directories.

Responsibility: Development of data import / export mechanisms (SQL, XML, FDB), subsystem of versioned updating.

Tools and technologies: MS Visual Studio 2010, MS SQL Server 2008, JIRA, Perforce, .NET 3.5 and 4.0, XML DOM, WinForms, DevExpress, Entity Framework.

Projects: BlankPublish (АИС УПТ). Complex software system of information storage and analytics.

Responsibility: C# Developer. Report subsystem developing (DevExpress, MS Excel). Development and bug fixing GUI. Excel import / export. Code review and refactoring.

Tools and technologies: MS Visual Studio 2008 and 2010, MS SQL Server 2005 and 2008, JIRA, Perforce, .NET 3.5 and 4.0, XML DOM, WinForms, DevExpress, Entity Framework.

Project: Bank4 (Modis Bank 4). Complex software system of information storage and analytics.

Responsibility: Development GUI and Reports (DevExpress.Reports). SQL queries creation.

Tools and technologies: MS Visual Studio 2010, MS SQL Server 2008, JIRA, Perforce, .NET 4.0, DevExpress, Entity Framework.

August 2010 – August 2012 (Software Engineer at РУП «Издательство «Белбланкавыд»)

Responsibility: Support a large network consist of more than two hundred PCs, connected via dial-up, Ethernet and 3G. PCs repair. Software installation, tuning and support.

August 2007 – November 2008 (Junior Software Engineer at Belhard Group)

Projects: Д• Дї Д‘Д”Д‘ and Д• Дї Д• Дœ ДšД—. Complex software systems of information storage and analytics. Contains modules for publishing houses, printing houses, Ministry of Finance, Ministry of Taxes and Duties. Three-tier architecture, MVC interface, interaction with other applications (Argosoft CM Client and Argosoft TransFile), operation with big data amount (more than five million records).

Responsibility: Junior C# Developer. Development and bug fixing GUI, data mining services, SQL queries and stored procedures. SQL queries optimization.

Tools and technologies: MS Visual Studio 2003, MS SQL Server 2000, Rational ClearQuest, Rational ClearCase, .NET 1.1, Model-View-Controller GUI.

Project: MT. Utility for processing requests, received from cellphone or GPRS-modem. The highest hardware safety and application stability.

Responsibility: Delphi Developer. GUI rearrangement, code refactoring and reliability improve (creating watchdog threads and embedded debugging tools).

Tools and technologies: MS Visual Studio 2003, MS SQL Server 2000, Rational ClearQuest, Rational ClearCase, .NET 1.1, Model-View-Controller GUI.

Achievements

SCAND / AC/DC

- Created whole Content Modelling Framework with Data Auto Migration subsystem. Well-documented, good-written, covered by unit tests, DAM really works and prevents data corruption.
- Managed to finish Graph Navigation project in 9 month (7 planned) despite work scope had been suddenly doubled two weeks before planned release.
- Rewrote existing data synchronization solution, which then was used to develop and launch mars rover.
- Developed customizable inner Workflow engine, based on Aras Innovator, and WorkflowCore package.
- Created easy AI-based Semantic Network engine and AI data model editor for own purposes.
- Accelerated x200 SQL stored procedure which indexed files for full-text search subsystem.
- Accelerated x50 method which opens search panel for complicated full-text search configurations.

Visutech

- Resurrected whole project twice after incorrect branch merging.
- Refactored signal connecting tool.
- Accelerated visual logger tool.
- Implemented some ease and efficient algorithms instead of spaghetti tanks.

MODIS-M

- Developed huge OLAP-like reporting subsystem (what decreased code size about five times).

Белбланкавыд

- Developed convenient administrative tools.
- Learned how to formalize and formulate complex requirements from users without technical background.

Belhard

- Accelerated warehouse recalculation stored procedure by 30% (12h → 8h).
- Made MT utility not reliable, but even immortal.