

Mihail Emilian Balescu

Location Isle of Wight, UK
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Nationality Romanian and British

Programming languages: C/C++, C#, Java, PHP, JavaScript, Adobe ActionScript3 (Flex/Flash).

Game programming: DirectX, OpenGL, online gaming, AI, path finding, assets pipelines, back end tools, game scripting, graphic formats, animations.

Platforms/OS: Microsoft Windows, Nintendo DS, Linux/Unix.

Interface programming: Windows API, MFC, MS .NET, Adobe Flex for RIAs.

Tools: MS Visual Studio, CodeWarrior, Adobe Flex, SVN, CVS, TFS, Jira, Bugzilla, TeamCity CI

Web/online programming: client/server applications, HTML, XML, PHP, JAVA applets and servlets, Adobe Flex, JavaScript, DHTML.

Project Documentation: HTML, Doxygen, MS Office, Wiki/Moin, SharePoint.

Work Experience:

01/2016 – Present:

Software engineer for an international company in data mining and process control for industrial applications. Developing, updating, fixing and maintaining COM/DCOM components to fit new industrial requirements, working on developing new modules to integrate with the existing system, working on updating the codebase to newer C++ compilers, creating tools for automating software analysis and detecting code flaws, creating test-harnesses for white-box testing showcasing potential bugs.

10/2014 – 11/2015 **KindGames.com**

Software engineer for an unreleased project using Adobe Flex for front end and C# for server-side part and tools, like graphical pipeline, collision areas editor, map editor etc.

11/2013 – 10/2014 **Stainless Games LTD**, Newport, Isle of Wight, UK.

Video games programmer in the Tools & Tech team for Carmageddon: Reincarnation. Implemented a procedurally generated clutter system for Carmageddon environments with C++ and hot edited Lua scripts. Also worked in an audio programmer role, for the Stainless sound engine, using FMOD library (C++ in the engine and Lua app side). Worked on various other tools controlling several game subsystems (C++, lua, C#, XAML). Tools: Visual Studio 2012, TeamCity, Svn, Jira.

11/2008 – 10/2013 **KindGames.com**

Software engineer developing several games including a 3D jigsaw puzzle and a Pacman-style game with C++ and OpenGL. I implemented the game front-end, tools for GUI scripting/editing, assets pipeline system, tools for shapes design generation using Bézier curves and the puzzle game-play. I made also a 2D jigsaw puzzle and a Mahjong for Windows using C#, the .NET framework and Managed DirectX, currently available online at http://www.compli.cat/jigsaw_puzzle/ and a Flex/Flash counterpart version of the 2D jigsaw puzzle for which I've also created some PHP scripts for the server-side needs (such as the support pages, user management and puzzle pages automated generation). I have also implemented a back-end vectorial drawing tool for the shapes for the jigsaw pieces cut-outs (common between the online and Windows version) and another for assembling the font files (both done in C# and .NET).

03/2007 - 11/2008 **Frontier Developments LTD**, Cambridge, UK,
Software developer for various projects using C++, C# and MS .NET, Adobe Flex. Projects include back-end tools for resource compilers, one resource compiler and work on porting a game from Nintendo Wii to Nintendo DS, converting code from Lua to C++. I have used the Nintendo SDK, C++, CodeWarrior and C# for assets pipeline generation. I implemented the assets pipeline tools for Nintendo DS platform, a sound system for both music and spot sound effects and a font system with basic kerning. Other work includes Windows MFC front end interfaces for a data mining system, Flex RIAs, Java servlets back-ends on Tomcat 5.5, generating Excel spreadsheets using Jakarta/POI for projects for an investment bank. I have written extensive documentation for all the tools I implemented.

04/2005 - 03/2007 **SW Professionals LTD**, Florida, US,
Worked as contractor in an online casino gaming project in a 50+ team. Developed a 3D software rendering engine in C. Worked on various additional tools for the rendering engine with C++/C and MFC. I implemented online games such as roulette using the cross platform framework developed on the house using C only cross platform on Windows and Linux.

08/2001 - 06/2006 **21st Software Corp.**, San Diego, CA, US, (overlapped with other jobs)
Worked as contractor, developed DirectX, Win32 and Java games (Jigsaw Puzzles, 2D and 3D Mahjong), maintained the company websites, developed new web sites, handled customer support for websites and company products. Written product specifications, system requirements, product documentation for help systems. (DirectX, C++, MFC, HTML, PHP)

01/2002 - 04/2005 **S.C. MIDATECH S.R.L.**, Iași, Romania,
Developed an informational system for a research & development company. Also handled people's training and solving support problems, consultant in hardware buying decisions.

01/2000 - 12/2001 **S.C. AUGSBURG S.R.L.**, Piatra Neamț, Romania
Built a computer management system for a 200+ people knitting factory including a proprietary database system for the manufacturing process. Handled people training and support for using the software, solved technical problems, involved in hardware buying decisions for supporting the system. Technologies: C++, MFC, HTML for generated reports.

Installing software tool (2001) Win32 fast installing software tool for packing and installing Windows applications. The software is on sale at www.MakeInstaller.com Software demos packed with this tool on <http://www.compliCat.com/download.php>

Neural Networks applications in character recognition (1999) designed to recognize handwritten characters (capital letters and numbers). Includes algorithms for splitting the texts in lines, characters' separation, filling algorithms, image processing algorithms, scaling, rotation, histogram, DCT, image filtering etc.

Education

1994 - 1999 "Gh. Asachi" Technical University, Iasi, Romania, **Computer Engineering Faculty**, degree in Computer Science

1986 - 1994 "C. Negrucci" Lyceum, Iasi, Romania, **Mathematics & Physics** diploma

Languages: Fluent English, native Romanian. I did study French but I've never used it so far.