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Alojz Kovacik

SUMMARY

Analytical software engineer with leadership skills, TDD practioner, with working knowledge of SCRUM methodology. Working on computer vision, 3D graphics and GIS domain.

Advanced C++ developer, experienced with WINSOCK network programming, code optimization and performance tuning including SIMD instructions and OpenMP. Expert in C#, .NET, and MS SQL with database analysis and design, worked on several .NET projects.

Interested in a challenging technical track career in an application development environment with main focus on C/C++ desktop, mobile or embedded hi-tech applications.

WORK EXPERIENCE

2012 – 2013 **Software Design Engineer**, *Anasoft APR, s.r.o.*

MULTIPLAYER GAME SDK, MICROSOFT

- Worked as an outsourced SDET for Microsoft. This Windows 8 mobile SDK is being used by world-known gaming companies.
- Worked as Slovak test team lead for the last four months of the contract. The team consisted of 3 members.
- Design and implementation of C++ framework for multiplayer testing using WINSOCK2.
- Design and implementation of memory leak detection framework using CRT library.
- Participated in creation of functional, boundary, unit, load, memory, performance tests using TAEF and YMTF frameworks.
- Implemented native and managed framework for testing mobile offline functionality using WININET.

2010 – 2012 **Software Engineer**, *Softplan Slovakia s.r.o.*

INGRADA DESKTOP GIS SOFTWARE

- Participated on the UI and business logic creation in .NET framework using C#.
- Participated on the design and implementation of underlying database, which included optimization for spatial and search operations in MS SQL.
- Reverse engineered and optimized underlying CIL code that increased the speed of business logic operations by 60%.
- Optimized memory usage of the software using .NET memory profiler and Visual Studio built-in tools.
- Implemented AutoCAD and GEOgraf extensions using C++, COM and WCF.
- Participated on the design and implementation of FDO provider for geometry data access.

2007 – 2010 **Software Engineer**, *TopSoft BSB s.r.o., part-time contract.*

Participated on the creation of intranet systems using Entity framework, ADO.NET, MS SQL, HTML and AJAX technologies.

EDUCATION

2008 – 2010 **M.S., Computer Graphics and Geometry.**

Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava.

Diploma Thesis: 3D modelling of solar radiation in urban areas.

2005 – 2008 **B.S., Mathematics.**

Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava.

Bachelor Thesis: Processing of GPS Data in Content Management System.

1997-2005 **Secondary education, Specialization - Programming.**

Gymnazium J. M. Hurbana in Cadca.

PERSONAL PROJECTS

GEOMETRY DEBUGGER

- Implemented in C++ and DirectX 11 application containing renderer for debugging image processing, geometric, graph cut, triangulation and other computer graphics relevant algorithms.
- Implemented simple communication protocol for debugging from other processes using WINSOCK. Protocol is also suitable for large data sets used when rendering point clouds with millions of points.

DEEP ZOOM

- Designed and implemented application for loading and showing images of very big sizes.
- The deep zoom tree structure is created using WIC and speed optimization is made using OpenMP and SIMD instructions.

DEPTH MAP SNAPSHOT

- Designed and implemented extension for the Graphics debugger for creating snapshots of the render target.

CUSTOMIZABLE MFC PROPERTY GRID

- Created customizable MFC component for fast options dialog creation.

JOOMLA GPS TRACK PHOTO EXTENSION

- Implemented extension for importing GPS tracks and combining them with the photos according to the time of creation. The working version is available at <http://skpcadca.sk/index.php/trasy>.

JOOMLA RACE REGISTRATION EXTENSION

- Implemented PHP, MySQL based Joomla extension for sport race registration. Preview is available at <http://www.skpcadca.sk>.

WEBSITE NEWWAVE-MULTISPORT.COM

- As a sponsorship designed and created multi sports team website <http://www.newwave-multisport.com>.

WEBSITE SKPCADCA.SK

- As a sponsorship designed and created runners team website <http://www.skpcadca.sk>.

LANGUAGE SKILLS

English	Professional working proficiency (12 years).
German	Limited working proficiency (2 years).
Czech	Full professional proficiency.

DRIVING LICENCE

Type B, over 40000 km driven.

REFERENCES AND LIST OF COMPLETED SUBJECTS DURING THE UNIVERSITY STUDIES

On request.

UPDATED

April 26, 2013.