RESUME

Jukka Jylänki

In short:
– Born in 1985.
– Software Engineer with a strong focus on C++, graphics programming, Computer Science and Mathematics.
– Holds a Master's Degree in Mathematics from the University of Oulu, Finland.
– Currently lives in Oulu.
– Webpage at http://clb.demon.fi/

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Work Experience

2008-Present Senior Programmer and a Team Lead At LudoCraft Ltd.
- Technology Lead on the RealXtend Tundra project. Designed and validated the overall architecture and client-side APIs.
- Technology Lead on the Project Room virtual meeting space. Implemented voip and video streaming, and webcam and screencast sharing.
- Special effects supervisor on the Miivies project. Developed character systems, shaders and special effects.
- Lead programmer on the GameBridge and Sandbox educational game projects. Wrote the game engine and game code.

2005-2008 Senior Programmer, game engine developer and AI developer at Farmind Ltd.
- **Puzzle Scape, PSP:** Ported and re-developed a Direct3D9-based graphics and game engine for use on the PSP platform.
- **World Series of Poker 2008, Nintendo DS:** Co-developed a game engine for the NDS platform. Implemented the AI opponents.

Education

2004 Graduated in Finnish upper secondary school, Oulaisten Lukio, with a GPA of 9.7/10, and four grades of Laudatur in A-level Mathematics, English, Swedish and Physics/Chemistry. Received a scholarship prize for excellence in natural sciences.

2004 Served nine months in Rovaniemi LapItr as Military Police, attaining the rank of Corporal.

2005-2007 Studied at the Department of Information Processing Science at the University of Oulu.

2008 Studied a semester of Computer Science and Mathematics at the University of Newcastle in Australia.

2011 Graduated B.Sc. and M.Sc. from the Department of Mathematics at the University of Oulu, with a grade of 5/5. Received a scholarship prize from the Tauno Tönning Foundation for providing novel research in the Master's Thesis "*Check Character Systems over Algebraic Groups*".

Technical Skills

Highly skilled with: C/C++, Direct3D9/10/11, GLES2, Cg/GLSL/HLSL, TCP/UDP, Qt, Ogre3D, Visual Studio, SVN, Git, 3D mathematics, algorithms and data structures, parallel programming.

Experienced with: C#, SSE/SIMD, Boost, HTML/XML/JSON/CSS, JavaScript, Java, .Net Framework, Unity 3D, PHP, MySQL.

Some experience with: Assembly, Python, Desktop OpenGL.

Achievements

- The author of **MathGeoLib**, an open source C++ library for 3D matrix-vector algebra and geometry manipulation. Available under the Apache 2 license from github repository juj/MathGeoLib. Runs on Windows, Linux, Mac and Android.
- The creator of **kNet**, an open source C++ networking library for games and real-time streaming applications. Runs on Windows, Linux and Mac. Implements reliable UDP, message prioritization and multichannel messaging. Available at Bitbucket in the repository clb/kNet under the Apache 2 license.
- Self-published research *A Thousand Ways to Pack the Bin - A Practical Approach to Two-Dimensional Rectangle Bin Packing*.
- Master's thesis available at http://clb.demon.fi/Gradu_Jylanki_final.pdf (in Finnish).