

Matthew Lausch

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Objective

To obtain a challenging and rewarding software development position which allows me to pursue my interest in computer graphics specifically with respect to film and games.

Skills

- *Programming Languages:* C/C++, Python, MEL, Java, Perl
- *Operating Systems:* Linux (Debian, Redhat, Ubuntu), Microsoft Windows, OSX
- *Software:* GCC, GDB, Microsoft Visual Studio, Xcode, CVS/Subversion, Perforce, VIM, The Gimp, Autodesk Maya, standard UNIX shell utilities (grep, diff, etc.)
- *Other Experience:* Maya API/scripting, OpenGL/CgFX, web development (HTML, CSS, Javascript, PHP, Apache), GUI development (Qt, wxWidgets, GTK), database management (SQL, Oracle), system and network administration
- Excellent written and oral communication skills
- Enthusiastic, hard-working, reliable, responsible

Education

- Honours Bachelor of Mathematics, Computer Science, University of Waterloo, Waterloo, Ontario, Canada. Graduated 2006 with Distinction (Dean's Honours List).

Work Experience

Autodesk, Toronto, Ontario.

Software Developer, Maya Rendering Team: September 2006 – present

- Work with C++, Python and MEL (Maya Embedded Language) to develop and maintain rendering features in Autodesk Maya on Windows, Mac and Linux
- Currently working on a next-generation hardware viewport for Maya, including shader authoring, use of advanced scene acceleration structures and Maya API creation
- Assisted in porting the UI layer of Maya from legacy, platform dependent UI toolkits to the cross-platform Qt UI toolkit
- Lead developer on the mental ray for Maya plugin for two years, requiring strong communication skills to effectively work with mental ray developers in Germany as well as local documentation, QA and product management
- Extensive experience with the Maya API as well as MEL/Python scripting in Maya
- Extensive experience with mental ray, specifically shader authoring and maintenance

Alias, Toronto, Ontario: 2005

Software Development Intern, User Experience Team: September – December, 2005

- Worked with the User Experience team to develop and refine user interface components for Autodesk Showcase, a real-time 3D visualization solution
- Developed complex UI components using C++, Python and wxWidgets
- Developed an interactive, direct texture manipulation tool that can be used to adjust the offset, scale and rotation of projective (planar, triplanar, cylindrical) textures
- Developed code to generate cinematic camera motion paths using simple Bezier splines

Software Development Intern, Maya Foundation Team: January – April, 2005

- Performed various Maya development tasks in C++ and MEL on Windows and Linux, primarily assisting the Maya x86-64 porting effort
- Used Perl to enhance the Maya nightly testing framework

NORTH Network, Toronto, Ontario.

Junior Web Developer: May – August, 2004

- Worked on a complex, mission-critical, J2EE scheduling application
- Planned, designed and developed a complete, automated acceptance/regression test suite using JMeter and Ant
- Built, configured, deployed and maintained the production machines serving the application; required knowledge of Windows 2000 Advanced Server, Oracle, JBoss, Tomcat, Crystal Decisions Report Application Server, Log4j and Ant

Canadian Cryospheric Information Network, University of Waterloo.

Principle Web Developer: September – December 2003

- Enhanced and maintained three websites belonging to the organisation (CCIN), two of which are currently available at <http://www.socc.ca> and <http://www.ccin.ca>
- Designed and developed a database driven shopping cart application using Coldfusion, JSP, Perl and Oracle to allow customers to order datasets from CCIN
- Converted two complete websites to use standards-compliant HTML and CSS as well as template features from JSP and Coldfusion

Awards and Achievements

- Graduated from my undergraduate studies with Distinction, Dean's Honours List (88% cumulative average), Fall 2006
- Awarded second place on 4th year Computer Graphics project, Summer 2005
- Valedictorian for graduating class at Medway High School, June 2001

Interests and Hobbies

- Technology of all kinds, computer graphics (and the associated mathematics), ray tracing
- Digital photography, contemporary Canadian literature, classical music
- Rock climbing, camping, canoeing
- World travel
- Personal website development
- Combining the above into awesome combinations