

# Martin Fuhrer

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**Career Objective** To further develop 3D graphics in the field of realistic modeling and rendering for real-time and offline animation.

**Education**

2005	University of Calgary	Master of Science: <a href="#">Realistic Plant Modeling and Rendering</a> Calgary, Alberta (Supervisor: Dr. P. Prusinkiewicz) Major Awards: NSERC PGS-A and iCORE Grants
2001	University of Calgary	Bachelor of Science, Computer Science with Distinction Calgary, Alberta (GPA: 3.87) Major Awards: Dept. of Computer Science Silver Medallion

**Selected Publications**

[Modeling and Visualization of Leaf Venation Patterns](#)  
A. Runions, M. Fuhrer, B. Lane, P. Federl, A. Rolland-Lagan, P. Prusinkiewicz  
In *Proceedings of SIGGRAPH 2005*. Los Angeles.

[Modeling Hairy Plants](#) M. Fuhrer, H. Wann Jensen, P. Prusinkiewicz  
In *Proceedings of Pacific Graphics 2004*. Seoul.  
Reprinted in *Graphical Models 68 (4)*, 2006, representing "best original results" of PG

[Lake Scene](#): Rendered scene of a lake, meadows, and forest  
In *2002 Highlights der Physik: Die Welt Hinter den Dingen*. Duisburg, Germany.

**Development Experience**

2006 - present	CGGVeritas	<a href="#">Research Graphics Programmer</a> Calgary, Alberta, Canada
		<ul style="list-style-type: none"><li>• develop and maintain 3D volume visualization software for seismic processing</li><li>• integrate and update disparate seismic systems during company merger</li></ul>
2002 - present	Independent development	<a href="#">Open Source Developer</a> Calgary, Alberta, Canada
		<ul style="list-style-type: none"><li>• lead developer and founder for <a href="#">XDroplets</a> and <a href="#">iPhoto Diet</a> open source projects</li><li>• port and maintain open source software such as <a href="#">Tux Paint</a> on Mac OS X</li></ul>
2001 - 2005	University of Calgary	<a href="#">Graphics Research Student</a> Calgary, Alberta, Canada
		<ul style="list-style-type: none"><li>• extended L-system software for inclusion of hairs and rendering parameters</li><li>• developed venation and translucency shaders for leaves and petals</li><li>• modelled and rendered a wide variety of plants (20+) based on L-systems</li><li>• implemented elementary ray tracing and texture synthesis algorithms</li></ul>
May - August 2001	MGM Software Consultancy	<a href="#">Java Developer</a> Munich, Germany
		<ul style="list-style-type: none"><li>• implemented validation framework for Enterprise Java Beans architecture</li></ul>

**Transferable Skills**

Programming:

- Languages: C, C++, Fortran, Objective-C, GLSL, Java, Applescript, Bash
- Libraries: OpenGL, Cocoa, Qt, STL, Boost

Graphics Software: Maya, Photoshop, Illustrator, Renderman, Final Cut

Platform Development: Mac OS X (XCode), Linux (KDevelop), Windows (MSVS)

Communication Skills: Toastmasters, Conference speaker, C++ Instructor

**Portfolio** [www.rhythmiccanvas.com/personal/portfolio/index.html](http://www.rhythmiccanvas.com/personal/portfolio/index.html)