MAXWELL SAYLES

PROFESSIONAL EXPERIENCE

GOOGLE   FEB 2011 – AUG 2012

- Face blurring for YouTube video editor and Google maps street view.
- Chromium web browser and media player for devices (FLV and MP4 parsing for H.264 and AAC decoding).
- YouTube transcoder backend (Python, C++, and Google Configuration Language).
- YouTube Leanback (http://youtube.com/leanback) using ActionScript 3, JavaScript, HTML5.
- Interview and screen software engineering candidates and mentor new hires.

UNIVERSITY OF CALGARY   SEP 2000 – FEB 2005, JAN 2008 – DEC 2010

- Teaching assistant for *Design and Analysis of Algorithms I* and *II*, and *Computer Architecture and Low-Level Programming*.
- Guest lecturer for *Design and Analysis of Algorithms I*, and *Information Structures I*.
- Course development for *Information Structures I.*
- Swarm Art – interactive evolving art (Linux, OS X, Python, C++, Objective-C, Cocoa, and Ogre3D).
- CaML (Camera Mark-up Language) server – a multi-threaded pluggable HTTP server for video analysis (Python, Linux and OS X).

STANDARD INTEGRATED ELECTRONICS   NOV 2007 – DEC 2008

- Real time MPEG-4 video re-encoder as a network gateway device (C++).
- E-commerce back end using Moneris for point of sale (C++, PHP).
- Web deployed 3D simulations (C++, Ogre3D).

SYMANTEC   FEB 2005 – JAN 2007

- Attack Quarantine System (AQS4.0) - honey pots to ensnare malicious code (VMware, Suse10, Perl, and MS-SQL).
- LophtCrack 5 - password auditing for Windows LM passwords and Linux MD5 passwords.
- Datafeeds - MS-SQL data replication using differential journals, XML, and Web services (C#).
- Threat Management Systems (TMS7.0) – an early warning system (Web services, C#, MS-SQL).
- A custom distributed caching server (C#, MS-SQL).

NINTENDO OF AMERICA   AUG 1995 – JUN 1999

- *The New Tetris* for the Nintendo 64, released on August 4, 1999.
- *Tetrisphere* for the Nintendo 64, released on August 17, 1997.

MAXWELL SAYLES

EDUCATION

UNIVERSITY OF CALGARY   SEP 1999 – MAY 2005, JAN 2008 – PRESENT

- Completing a Master's of Science in Computer Science in Computational Number Theory. Improved exponentiation in the ideal class group of imaginary quadratic fields with an application to integer factoring.
- Bachelor of Arts with distinction in 2005: majored in Philosophy, with a minor in Religious Studies and Anthropology.
- Received the medallion for highest academic proficiency (GPA) in the department of Philosophy.
- Participated in the Term Abroad Program to India with courses in Social Work, Ecology, and conversational Hindi.

AWARDS

- 2011 – NSERC CGS-D ($105,000 CAD) and department research award ($8,000 CAD).
- 2009 – NSERC CGS-M ($17,500 CAD), iCORE top-up ($12,300 CAD), and department research award ($8,000 CAD).
- 2008 – Teaching award for *Design and Analysis of Algorithms I* (CPSC413) in Fall 2008.
- 2006 – Four A++ awards ($10,000 CAD) at Symantec.
- 2005 – Award for highest academic proficiency (GPA) in the department of Philosophy at the University of Calgary.
- 2004 – First place ($3000 CAD) at the 2nd Annual Calgary Technology Center Programming Competition.
- 2003 – Rhoda F. Blythe Philosophy Undergraduate Scholarship ($1800 CAD).
-      – Owen Family Scholarship ($500 CAD).
- 2000 – Jason Lang Scholarship ($1000 CAD).

PUBLICATIONS

- *SwarmArt: Interactive Art from Swarm Intelligence.* J. Boyd, G. Hushlak, C. Jacob, **M. Sayles**, P. Nuytten. Leonardo. Volume 40, Number 3, June 2007: 248-254.
- *SwarmArt: Interactive Art from Swarm Intelligence.* J. Boyd, G. Hushlak, C. Jacob, **M. Sayles**, P. Nuytten. Proceedings of the 12th ACM International Conference on Multimedia, October 12-14, 2004, New York, NY, USA. ACM Press: 628-635.
- *Internet broadcasting of hockey: a scale prototype.* J. Boyd, **M. Sayles**, L. Olsen, P. Tarjan. SPIE Internet Imaging V, January 2004, Santa Jose, CA: 193-201.
- *Content Description Servers for Networked Video Surveillance.* J. Boyd, **M. Sayles**, L. Olsen, P. Tarjan. ITCC (1) 2004: 798-803.
- *Camera Interaction through CaML Video Information Sensors.* J. Boyd, N. Kendrick, L. Olsen, **M. Sayles**, P. Tarjan. IS 2003 - 13th Annual Canadian Conference on Intelligent Systems: 28.
- *CaML: Camera markup language for network interaction.* **M. Sayles**, X. Wu, J. Boyd. SPIE Internet Imaging IV, Vol. 5018, January 2003, Santa Clara, CA: 248-256.
- *Real-Time Video Phase-Locked Loops.* J. Boyd, **M. Sayles**. ICCV 2001: 742.