Contact Information

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Education

Doctor of Engineering, Mechanical and Control Engineering,   2010 –
Tokyo Institute of Technology, Tokyo, Japan. Japanese Government (Monbukagakusho) Scholarship.
Released JavaCV, open source computer vision for the Java platform.

Master of Engineering, Mechanical and Control Engineering,   2008 – 2010
Tokyo Institute of Technology, Tokyo, Japan. Japanese Government (Monbukagakusho) Scholarship.
GPA: 3.00/3.00. Thesis: *Harnessing Computer Vision to Project Video on Moving Object Surfaces*.
(Linux, Windows XP, Java, C/C++, OpenCV, FFmpeg, LaTeX)

Master of Engineering, Electrical and Computer Engineering, McGill University,   2005 – 2007
Montréal, Canada. NSERC Postgraduate Scholarship. GPA: 4.00/4.00. Dean's Honour List. Thesis:
Shadow Removal from Multi-Projector Displays via Three-Dimensional Modeling and Object Tracking.
(MATLAB, Linux, C/C++, CORBA, OpenGL, OpenSceneGraph, OpenCV, LaTeX)

Bachelor of Engineering, Computer Engineering, École Polytechnique de Montréal,   1998 – 2003
Montréal, Canada. GPA: 3.84/4.00. Graduated with Great Distinction.
Final Project: *HumanLocator, système de vision artificielle pour arts interactifs*.
(UML, Windows XP, C/C++, MFC, XML, DOM, Lingo)

Work Experience

Internship, Google Japan, Tokyo, Japan.   Summer 2010
Developed new experimental features and their user interface for a mobile maps application.
In a short period of time, figured out the large client-server system, exceeding expectations.
(Android, Linux, Java, SQL, Protocol Buffers, App Engine)

Research Assistantship, Tokyo Institute of Technology, Tokyo, Japan.   Spring–Summer 2008
Investigated image super-resolution and H.264/MPEG-4 AVC video compression, aiming to increase
spatial resolution. Evaluated resolution charts in my initiative to perform quantitative and robust
measurements. (Windows XP, C/C++, Java, FFmpeg, x264)

Research and Teaching Assistantship, McGill University, Montréal, Canada.   2006 – 2008
Developed a Web service and its user interface to calibrate and control remotely a pan, tilt, and zoom
camera. Recommended using JAX-WS, which saved us development time. Authored and marked
assignments as well as took responsibility of guest lectures for a course in artificial intelligence.
(UML, MATLAB, Linux, C/C++, Java, EJB, JAX-WS)

Research and Development, Freeset, Montréal, Canada.   2003 – 2005
Led research and development of computer vision software for interactive installations.
Realized commercial installations. (UML, Windows XP, x86, SSE, C/C++, Java,
SWIG, CORBA, COM, DirectShow, OpenCV, XML, DOM, ActionScript)

Internship, PGCI Security, Montréal, Canada.   Summer 2002
Developed software for network security tools. Proposed a Java user interface that was accepted for
implementation. (UML, Linux, Solaris, Windows NT, C/C++, Java, DHCP, PHP, HTML)

Internship, Sony Corporation, Tokyo, Japan.   2001 – 2002
Developed software for an audio player and manager installed on personal computers.
Suggested using HTTP for reading remote audio files, idea that was adopted.
(UML, Windows XP, C/C++, MFC, ATL, COM, DirectShow, BSD sockets, HTTP)

Internship, Matrox Electronic Systems, Dorval, Québec, Canada.   Summer 2000
Developed automated tests for the software quality assurance of an image processing library.
Also accomplished a highly praised demo application. (Windows 2000, C/C++)

Internship, Correctional Service Canada, Laval, Québec, Canada.   Summer 1999
Prototyped a Web application as user interface to the databases. Created numerous complex
SQL queries. (Windows 98, Transact-SQL, ASP, VBScript, JavaScript)

Languages

- French   native speaker
- English   excellent
- Japanese   good (passed the Japanese-Language Proficiency Test Level 2, December 2002)

Publications

- Samuel Audet, Masatoshi Okutomi, and Masayuki Tanaka. Augmenting Moving Planar Surfaces Interactively with Video Projection and a Color Camera. *The 10th IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2011)*. IEEE Computer Society, October 2011. In submission.
- Samuel Audet, Masatoshi Okutomi, and Masayuki Tanaka. Augmenting Moving Planar Surfaces Robustly with Video Projection and Direct Image Alignment. *Special Issue: Models for Mixed and Augmented Reality, Virtual Reality*. Springer-Verlag, 2011. To appear.
- Samuel Audet, Masatoshi Okutomi, and Masayuki Tanaka. Interactive Video Projection on a Moving Planar Surface of Arbitrary Texture Tracked with a Color Camera. *The 13th Meeting on Image Recognition & Understanding (MIRU2010)*. July 2010.
- Samuel Audet, Masatoshi Okutomi, and Masayuki Tanaka. Direct Image Alignment of Projector-Camera Systems with Planar Surfaces. *The 23rd IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2010)*. IEEE Computer Society, June 2010.
- Samuel Audet and Masatoshi Okutomi. A User-Friendly Method to Geometrically Calibrate Projector-Camera Systems. *The 22nd IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2009) - Workshops (Procams 2009)*. IEEE Computer Society, June 2009.
- Samuel Audet and Jeremy R. Cooperstock. Shadow Removal in Front Projection Environments Using Object Tracking. *The 20th IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2007) - Workshops (Procams 2007)*. IEEE Computer Society, June 2007.

Other Experiences

Personal Software Programming Projects

JavaCPP, calling native C++ functions easily from the Java platform. (Java, C/C++)	2011
Short Typing, mobile text input by using computer generated abbreviations. (Java ME)	2008 – 2009
PM123, audio player. (OS/2 Warp, x86, MMX, C, REXX, BSD sockets, HTTP)	1998 – 2003
Disk Indexer, database and user interface for files on mobile media. (Java)	1999 – 2000
CD2MP3 PM, CD to audio files converter. (OS/2 Warp, C/C++, BSD sockets, HTTP, CDDB)	1998 – 2001
Hot Scroll, user friendly alternative to scroll bars. (OS/2 Warp, C)	1998
Hot Corners, tool to use effectively the corners and borders of the screen. (OS/2 Warp, C, CORBA, SOM)	1997 – 1999
BackTalk, speech synthesis system based on rsynth. (OS/2 Warp, C, REXX)	1996 – 1997

Volunteer Coordinator, Matsuri Japon, Montréal, Canada.   2007
Recruited and managed volunteers required to hold a traditional Japanese festival.

Founder Member, polySoft, École Polytechnique de Montréal, Canada.   2002 – 2004
Student committee offering an experience of teamwork in software development.

President and Webmaster, Montréal's English OS/2 Warp User Group, Canada.   1997 – 1998
Technical exchange group for users of the operating system OS/2.

Design and development of personal Web sites   Since 1996
(CGI, Perl, PHP, Java, JavaScript, HTML, CSS, POV-Ray, GIMP)

Assembly, repair, and inspection of computer hardware   Since 1994

References and Recommendations

Available on demand.