

Technical Skills

- Extensive experience with C, C++ and STL, C#, VisualBasic, .NET, Win32, Java, Python, OpenGL, GDI+, VisualStudio, NovodeX Physics SDK, TabletPC SDK, WinTab, OpenCV, Maya, MEL, Adobe Premiere, After Effects, Photoshop, Illustrator, HTML, XML, PHP, Dreamweaver, Flash.
- Experience with MATLAB, SQL, Qt, JavaScript, CSS, RSS.
- Skilled in rapid prototyping interactive graphics and 2D/3D user interfaces.
- Extensive training in fundamentals of Human-Computer Interaction (HCI) and Usability.
- Proficient videographer, productions include 3D Animation, Music Videos, Short Film Fiction, Documentary, Interactive Flash, TV segment and opening sequences, Advertisements, Visual Effects and Bluescreening.

Relevant Project Experience

Masters Thesis - Enriching the Desktop Metaphor with Physics, Piles and the Pen Sept 2004 – Jan 2006

- Pioneered novel physically based desktop interface leveraging expressive power and casual nature of real desks.
- Patent pending. Commercialization in progress. Generated industrial interest from top research executives at Microsoft Research, Pixar, XeroxPARC, Alias and SMART Technologies.
- Received highest peer review scores out of 12 University of Toronto submissions to ACM CHI conference, the largest and most prestigious HCI conference in computer science.
- Designed and implemented a large scale pen driven interactive system incorporating state-of-the-art physics and visualization packages.

Undergraduate Thesis - SuperSkewer 3D Graph Interaction

Sept 2003 – May 2004

- Developed inexpensive webcam system for 3D tracking of an infrared wand using OpenCV vision package.
- Prototyped suite of interaction techniques for 3D graph interaction, visualization.

Publications

Primary Author and Presenter:

- **Keepin' It Real: Pushing the Desktop Metaphor with Physics, Piles and the Pen.** Full paper to appear in ACM CHI 2006.
- **The Context-Aware Pill Bottle and Medication Monitor.** (primary author/presenter). Presented at Ubicomp 2004 – Conference on Ubiquitous Computing.

Secondary Author and Presenter:

- **PhylloTrees: Harnessing Nature's Phyllotactic Patterns for Tree Layout.** Presented at InfoVis 2004 – IEEE Symposium on Information Visualization; EuroGraphics - IEEE Symposium on Visualization

Professional Experience

University of Toronto

May 2005 – Nov 2005

Department of Computer Science – Teaching Assistant (Human Computer Interaction)

- Led tutorials for 15 graduate and Ph.D. students in course webcast nationwide across many universities.
- Instructed C# and groupware toolkits for rapid prototyping of collaborative software.

InnoVis Research Lab

May 2004 – July 2004

University of Calgary – Natural Sciences and Engineering Research Council - Research Assistant

- Investigated visualizing hierarchical information as naturally occurring fractals.
- Published in premier information visualization conference IEEE InfoVis 2004.

- Developed flexible C# and OpenGL-based interactive software for exploring diverse visualizations.
- Novel approach resulted in optimal packing, intuitive control and aesthetically appealing graphs.

Interactions Research Lab

May 2003 – Sept 2003

University of Calgary – Natural Sciences and Engineering Research Council - Research Assistant

- Prototyped RFID based system for reminding the elderly about medication through SMS, XML and the web.
- Produced first commercially viable product from lab's Phidgets hardware prototyping toolkit.
- Developed .NET wrapper, components and skins for COM-based Physical Widgets API.

IASTED - International Association of Science and Technology for Development

Summer 2001, 2002

Graphic Designer, Production Engineer, Assistant Publisher

- Designed brochures, conference proceeding covers and promotional material for worldwide distribution.
- Assessed and optimized existing workflow with Python scripts reducing several 2 hour processes into minutes.

Calais Printing

May 1997 – May 2001

Graphic Designer

- Designed brochures, business cards and signage for small and medium sized businesses.
- Experience in print shop processes and preparing files for output bureaus.

Awards and Media Coverage

- Awarded \$88,000 in graduate scholarships – 2006 NSERC PGS D National Scholarship (\$63,000), 2005 Ontario Graduate Scholarship (\$15,000), 2004 Wolfond Fellowship (\$10,000).
- Awarded \$18,000 in undergraduate competitive academic scholarships and national research assistantships.
- Interactive Flash *Anand's Dancing Machine* featured on frontpage of CBC ZeD site viewed over 10,000 times.
- Produced over 20 short film pieces aired on CBC, NUTV, and at the University of Toronto Film Festival.

Education

Masters of Computer Science

Sept 2004 – Jan 2006

University of Toronto, GPA: 3.9/4.0

- Focused studies in HCI, User Interfaces, Interactive Graphics and Computer Animation.
- **Thesis** Enriching the Desktop Metaphor with Physics, Piles and the Pen.

BSc. Honours in Computer Science, Minor in Art

Sept 1999 – April 2004

University of Calgary, GPA: 3.7/4.0

- Focused studies in HCI, Graphics, Computer Animation, Games Programming, Art and Video production.
- **Thesis** Super Skewer - 3D Graph Interaction for Large Displays.

Volunteer Experience

NUTV – New University Television

Dec 2003 – May 2004

Movie Critic, Production Assistant

- Hosted, filmed and edited weekly movie review show. Coordinated directly with studio representatives.
- Produced over 13 short pieces that aired on the NUTV cable channel and campus closed circuit TV.

Activities and Interests

- Competitive team sports such as hockey and basketball.
- Travel - enjoyed trips to India (Term Abroad Programme), across Europe and North America.
- Film and video production, hip-hop music creation. Photography prominently featured on wallpaper websites.

Portfolio and Demo Reel at <http://honeybrown.ca> or on request