

Jacobo Bibliowicz Schuster

<http://www.dgp.toronto.edu/~jacky>

697 College St.
Toronto, Ontario
M6G 1B9
(416) 836-1375
jacky@dgp.toronto.edu

Objective To further my understanding of computer graphics and interactive techniques by working part- or full-time developing production software in the industry.

Languages Fluent in English and Spanish, familiar with Portuguese and Hebrew.

Computer Skills

<u>Languages:</u>	C++, Python, Java, C#, L ^A T _E X
<u>APIs:</u>	OpenGL, MEL, VTK, wxPython, ML
<u>Software:</u>	Maya, MeVisLab, Vicon
<u>Office Software:</u>	Word, PowerPoint, Excel, Outlook

Work Experience **Research Intern**, Autodesk Canada, Inc. Toronto, Ontario **Sept. 2008–present**

- Implemented a pipeline for extracting the exterior surface of individual bones from CT scan volumes in MeVisLab.
- Generated muscle surface shapes from muscle fiber data provided by the University of Toronto Anatomy Lab.
- Explored and evaluated using the Foundational Model of Anatomy Ontology to label our datasets.

Significant Unpublished Graduate School Projects **Sept. 2002–present**

- Boxy: Mapping human facial motion capture to arbitrary characters.
- Murphy: human character with a muscle-based facial rig.
- Fitting above-mentioned rig to 3D human facial scans (Masters thesis).
- Physically-based drawing program with multi-touch interface.
- Monte-Carlo ray tracer with numerous sampling techniques, including BRDF-weighting.

Software Engineer, Autodesk, Inc. Ithaca, NY **Sept. 1998–Sept. 2002**

- Designed and implemented an online, design collaboration framework, *Design Site*, supporting many concurrent users. Patent pending.
- Designed and implemented threaded auto-save feature.
- Developed our application XML-Schema and XSLT framework for updating our file format.
- Implemented display of rotated Windows Metafiles, including the Windows variants where it is not natively supported.
- Standardized the team development environment and upgraded the build process.

Relevant Coursework

Foundations Computer Vision	Computer Animation
Human Perception in Computer Graphics	Advanced Rendering Seminar
Introduction to Machine Learning	Topics in Interactive Computing

Education

Ph.D. in Computer Science, University of Toronto, Toronto, ON **In Progress**
Concentrations in Computer Graphics, Animation, and Medical Imaging

M.S. in Architectural Science, Cornell University, Ithaca, NY **Jan. 2005**
Awarded by the Program of Computer Graphics

Thesis: *An Automated Rigging System for Facial Animation*
Minor in Computer Science

B.S. in Applied & Engineering Physics, Cornell Univ., Ithaca, NY **May 1998**
Magna cum laude
Concentrations in Computer Science and Optics
GPA: 4.0/4.3

Publications

Patrick Coleman, Jacobo Bibliowicz, Karan Singh, Michael Gleicher.
Staggered Poses: A Character Motion Representation for Detail-Preserving Editing of Pose and Coordinated Timing. Symposium on Computer Animation 2008.

Pierre Dragicevic, Gonzalo Ramos, Jacobo Bibliowicz, Derek Nowrouzezahrai, Ravin Balakrishnan, Karan Singh.
Video Browsing by Direct Manipulation. SIGCHI Conference on Human Factors in Computing Systems 2008.

Other Experience

Teaching Assistant, Computer Graphics, University of Toronto **2005–2008**

- Taught tutorials and lectures, designed and graded programming assignments. Topics include hierarchical transforms, lighting, texturing, and basic OpenGL.

Teaching Assistant, Computer Animation, Cornell University **2002–2003**

- Lectured, graded assignments, and created didactic material for use in lab tutorials. Topics covered include character rigging and facial animation.
- Responded to student inquiries during set lab and office hours.

Leadership and Volunteer Work

Student Volunteer, ACM SIGGRAPH Conference **2004–2009**

- Membership Booth Manager, 2008.
- Team Leader, 2007 and 2009.
- Delivered groups of 20 student volunteers to their assigned posts.
- Managed schedule shifts and resolved scheduling conflicts.
- Ensured the students performed an adequate job at their stations.
- Assisted in all aspects of setup and running of the conference.
- Volunteered time to work special events.

Assistant Instructor, Children's Karate class, Hasu Dojo **June 2006–Present**

- Instruct groups of up to 15 children through basics, kata, and sparring.

Student Volunteer Chair and Advisory Board Student Member, DGPis40 Scientific Workshop and 40th Anniversary Reunion **Nov. 2006–May 2008**

- Recruited and organized students to perform various setup, teardown, and support tasks.
- Provided student input during the organization and planning stages of the event.

President, Colombian Graduate and Professional Students Association, Cornell University **2003–2004**

- Organized social and fund-raising events.

Hobbies

Goju Karate-Do (1st Degree Black Belt), Tai Chi (1st Level Instructor), Latin dancing, bike riding, raw nutrition, real estate investing.

References

Available upon request.