

Patrick Coleman

Current

Department of Computer Science
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Permanent

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Citizenship

United States

Objective

A problem-solving and creative position where I can utilize my technical and creative skills in computer graphics and computer animation.

Education

University of Toronto

Sept 2002-Present

- Ph. D. Student. Research interests include Character Animation, Curve and Surface Modeling, and Non-Photorealistic Rendering. Degree expected 2010.
- M. Sc., Computer Science. Thesis: "Interactive Control for Nonlinear Projection of Complex Animated Scenes." Nov. 2004.

The Ohio State University

Sept. 1998- June 2002

- B. S., Computer Science and Engineering. June 2002.
- Graduation with Distinction and summa cum laude. Honors Thesis: "Motion Control for Fluid Animation: Flow Along a Control Path."

Experience

Pixar Animation Studios: *Technical Director/Intern, Ratatouille* Intermittent, July 2004-April 2007

- Effects Technical Development, Effects Animation, Character Shading.

Ryan: *Production Programmer and Technical Director*

2002-2003

- Technical Development: Stylized Cameras, Animation, Modeling, and Shading.
- Academy Award, Best Short Animated Film of 2004.

University of Toronto Computer Science: *Instructor*

Jan. 2009-May 2009

- Computer graphics for fourth-year undergraduates and graduate students.

University of Toronto Computer Science: *Teaching Assistant*

Sept. 2003-Dec. 2009

- Introductory Programming, Computer Graphics, and Undergraduate Capstone Design.

OSU Computer Science: *Undergraduate Research Assistant*

Sept. 1999-June 2002

- Projects include Fluid Animation, 3D Shape Change, and GUI Design.

OSU Computer Science: *Grader and Lab Assistant*

March 1999-March 2002

- Courses include Introductory Programming, System Design, and Computer Graphics.

Select Publications

- "Staggered Poses: A Character Motion Representation for Detail-Preserving Editing of Pose and Coordinated Timing." *SCA 2008*. With J. Bibliowicz, K. Singh, and M. Gleicher.
- "Cords: Geometric Curve Primitives for Modeling Contact." *IEEE Computer Graphics and Applications*. May/June 2006. With K. Singh.
- "Outside-In Anatomy Based Character Rigging." *SCA 2005*. With M. Pratscher, J. Laszlo, and K. Singh.
- "RYAN: Rendering Your Animation Nonlinearly projected." *NPAR 2004*. With K. Singh.

Technical Skills

- Extensive Experience with C/C++, Python, Maya MEL, and the Maya API.
- Experience with Cocoa/Objective-C, MATLAB, Java, RenderMan SL, AppleScript, and Fortran.
- Extensive Knowledge of Maya animation software, experience with RenderMan/MTOR/Slim, Final Cut, Premiere, Photoshop, Illustrator, Aperture, Vicon iQ, and Logic.

Awards and Honors

- Apple Computer WWDC Student Scholarships, 2006-2007
- ATI Graduate Fellowship, 2005-2006.
- MITACS Student Award for Technology Transfer for research applied to the production of Ryan, 2006.
- OSU Honors Thesis--Second Prize in Engineering, Denman Research Forum, May 2002.
- Numerous University and Departmental Scholarships, OSU, Sept 1998-June 2002.
- Upsilon Pi Epsilon Computer Science Honor Society, Past President of Ohio Alpha.
- Tau Beta Pi Engineering Honor Society, Ohio Gamma.
- Eagle Scout, BSA.

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Professional Activities

- Paper Reviewer: SIGGRAPH 2007-2008, ACM Transactions on Graphics, SCA 2004, 2006-2007, NPAR 2007, Eurographics 2006-2008, GI 2003-2007, 2009, IEEE Visualization 2007, Information Visualization 2008, CGI 2005, 3D User Interfaces 2009
- Sketches Reviewer: SIGGRAPH 2006.
- Poster Reviewer: ACM Student Research Competition, SIGCSE 2002.
- Student Volunteer: SCA 2003, SIGGRAPH 2002, SIGCSE 2001-2002.
- Animation Show Producer and Curator, DgpIs40 Scientific Workshop & Reunion, May 2008.
- Student Member of ACM and ACM SIGGRAPH.

Other Activities

- Life Drawing, Anatomy, Painting; non-degree student at the Toronto School of Art, 2005-2009
- Fire Spinning (Poi)
- Photography
- Musician (Keyboard, Bass Guitar, Violin, Guitar).
- Hiking, Backpacking, SCUBA Diving, Windsurfing, Boating.
- Assistant Scoutmaster, BSA.

Full CV available at <http://www.dgp.toronto.edu/~patrick/cv.html>