

## James L. McCann

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Computer Science Department  
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### Education

Carnegie Mellon University, Pittsburgh, Pennsylvania (Fall 2005 to Spring 2010 [expected])  
PhD student; member of the Graphics Lab, advised by Nancy Pollard

University of Michigan, Ann Arbor, Michigan (Fall 2001 to Spring 2005)  
Dual Major: Honors Computer Science, Honors Mathematics

### Journal Publications

#### *Local Layering*

by J. McCann and N. S. Pollard; ACM Transactions on Graphics (SIGGRAPH 2009), 28(3), 2009.

#### *Real-Time Gradient-Domain Painting*

by J. McCann and N. S. Pollard; ACM Transactions on Graphics (SIGGRAPH 2008), 27(3), 2008.

#### *Responsive Characters from Motion Fragments*

by J. McCann and N. S. Pollard; ACM Transactions on Graphics (SIGGRAPH 2007), 26(3), 2007.

### Conference Publications

#### *Mid-level Fluid Control with Fluid Motifs* (Poster)

by A. Barnat, Z. Li, J. McCann; ACM SIGGRAPH / Eurographics Symposium on Computer Animation, 2009.

#### *DynaMMo: Mining and Summarization of Coevolving Sequences with Missing Values*

by L. Li, J. McCann, N. S. Pollard, C. Faloutsos; KDD 2009.

#### *Recalling The Single-FFT Direct Poisson Solve* (Poster)

by J. McCann; ACM SIGGRAPH, 2008.

#### *Laziness is a virtue: Motion stitching using effort minimization*

by L. Li, J. McCann, N. S. Pollard, and C. Faloutsos; Short Papers Proceedings of EUROGRAPHICS, 2008.

#### *A Hierarchical Self-Organizing Map for Motion Exploration* (Poster)

by R. Slyper and J. McCann and N. S. Pollard and J. K. Hodgins; ACM SIGGRAPH / Eurographics Symposium on Computer Animation, 2007.

#### *Physics-Based Motion Retiming*

by J. McCann, N. S. Pollard, and S. Srinivasa; ACM SIGGRAPH / Eurographics Symposium on Computer Animation, 2006.

#### *NEWTON: A Library-Based Analytical Synthesis Tool for RF-MEMS Resonators*

by M. S. McCorquodale, J. McCann, and R. B. Brown; Asia and South Pacific Design Automation Conference, 2006.

### Advising

A. Barnat (undergrad) – Independent Study (Spring 2009)  
Motif-based fluid control with texture synthesis

Z. Li (undergrad) – Independent Study (Spring 2009)  
Motif-based fluid control with particle-tracking

## **Teaching**

Computer Game Programming (Fall 2009)

I solo taught this popular junior/senior level project course about making games. Using previous course iterations as a loose blueprint, I restructured the class, developing new lectures and projects. In aggregate, my students crafted 105 new game prototypes and 6 polished final games.

Computational Photography (Fall 2007)

As the TA of this class taught by Alexei Efros, I helped students with matlab questions, revised existing assignments, and designed a new project.

Animation Art and Technology (Spring 2006)

As one of two TAs in this class taught by Jessica Hodgins and James Duesing, I helped students with maya and linux questions that arose as they worked in groups to produce short animations.

## **Departmental Service**

Admissions Committee (two year term)

Doctoral Review Committee (three years)

## **Work Experience**

Researcher – Adobe Creative Technologies Lab (Summer 2009)

Exploring what it means for people to collaboratively create photographs.

Lead Graphics/Engine Programmer – Chronic Logic (Summer 2006)

Worked on the upcoming game 'MicroWarrior' with this independent game studio.

Central Tools Programmer – Electronic Arts Redwood Shores (Summer 2005)

Debugged and overhauled the character animation system used in Bond, Tiger, and Godfather.

Dev in Test – Microsoft (Summer 2004)

Wrote test automation for Windows shell APIs; responsible for desktop ui testing in XP SP2.

## **Other Interests**

Interactive computer art: installations at Sync'04 and Sync'05; installation at Pittsburgh Children's Museum; installation in CMU Gates Hillman Center

Glass blowing: 4 years experience; basic forms, sculpting, frit, solid color, cane, torch work, large assembly

## **Honors and Awards**

Microsoft Intern Puzzle Day 2004 (3rd); UM Puzzle Day 2003 (1st); College Puzzle Challenge 2008 (2nd)

ACM Team Programming Contest World Finals 2003 and 2004

University of Michigan Outstanding Achievement in Mathematics Award (2005)

William LeVeque Award in Number Theory (2003)