

MIRA DONTCHEVA

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EDUCATION

2000 – present University of Washington Seattle, WA

- Ph.D. in Computer Science, Expected Fall 2007
- M.S. in Computer Science, March 2003

1997 – 2000 University of Michigan Ann Arbor, MI

- B.S.E in Computer Engineering, Summa Cum Laude

PUBLICATIONS

- Dontcheva M., Drucker S., Salesin D., Cohen M., **Changes in Webpage Structure over Time**, UW CSE Technical Report (TR2007-04-02), April 2007
- Dontcheva M., Drucker S., Wade G., Salesin D., Cohen M., **Summarizing Personal Web Browsing Sessions**, UIST 2006, *Best Student Paper Honorable Mention*
- Dontcheva M., Drucker S., Cohen M., **v4v: a View for the Viewer**, DUX 2005
- Dontcheva M., Agrawala M., Cohen M., **Metadata Visualization for Image Browsing**, UIST 2005 Demonstration
- Agarwala A., Dontcheva M., Agrawala M., Drucker S., Colburn A., Curless B., Salesin, D., Cohen. M., **Interactive Digital Photomontage** , SIGGRAPH 2004
- Spring, N, Dontcheva M., Rodrig M., Wetherall D., **How to Resolve IP Aliases**, UW CSE Technical Report (TR2004-05-04), May 2004
- Dontcheva M., Yngve G., Popovic Z., **Layered Acting for Character Animation**, SIGGRAPH 2003
- Otero J., Dontcheva L., Johnston H., Worthing R., Kurganov A., Petrova G., Doering C., **High Raleigh number convection in a fluid saturated porous layer**, Journal of Fluid Mechanics, vol. 500, (263-281), 2004
- Doering C., Dontcheva L., Klosek M., **Constructive role of noise: Fast fluctuation asymptotics of transport in stochastic ratchets**, Chaos Magazine Volume 8, Number 3, (643-9)

EXPERIENCE

Research Assistant

University of Washington, Seattle, WA

- 05 – Present, **Collecting and Organizing Web Content:** Exploring interactive techniques for semi-automatically collecting and organizing Web content. (with Dr. Steven Drucker, Dr. Michael Cohen and Dr. David Salesin)
- 03 – 04, **Combining Multiple Images:** Using graph-cut optimization and an intuitive user interface we created a framework that allows us to seamlessly combine multiple images. We applied it to a number of domains, such as image based relighting, extended depth of field, stroboscopy, and background reconstruction. (with Dr. Michael Cohen and Dr. David Salesin)
- 01 – 03, **Novel Interfaces for Computer Animation:** Using real-time motion capture and instant visual feedback we created an animation system that allows rapid prototyping of expressive motion. (with Dr. Zoran Popovic)

University of Michigan, Ann Arbor, MI

- 2000, **Character Animation in Virtual Training Environments:** Designed a virtual football training application for coaches and teams. I built algorithms for controlling the animation of virtual characters based on trajectories and the surrounding environment. (with Dr. Klaus-Peter Beier)
- 97 – 98, **Undergraduate Researcher:** Numerically analyzed differential equations with MATLAB. The problems I tackled were applicable to the fields of Physics, Biology, and Mathematics. (with Dr. Charles Doering)

Internships

- Summer 06, **Adobe Systems** (with Dr. David Salesin) Explored new directions in search interfaces with the goal of automatically generating visual summaries of content relevant to a user. Implemented a prototype using the Adobe Flex 2.0 framework.
- Summer 05, **Microsoft Research** (with Dr. Steven Drucker) Explored novel visual representations of Web research sessions and implemented a working system for visualizing temporal elements of a browsing session such as page visits, clicked hyperlinks, and visit duration.

- Summer 04, **Microsoft Research** (with Dr. Michael Cohen) Explored representation and interaction paradigms for slides in a slide presentation and created a slide-viewing and annotation application that focuses on the needs of the viewer of a presentation.
- Summer 03, **Siemens Technology-To-Business Center** (with Dr. Richard McDaniel) Developed algorithms for generating 3D meshes given an arbitrary wire-frame outline in 3D. The generated meshes included characteristics implied by the outline. Also, developed algorithms for specifying the mesh outline given a freeform sketch.

Teaching

University of Washington, Seattle, WA

- Oct. 04 – June 05, **Instructor** (Engr 199) Lead a seminar for freshman and sophomore undergraduate women with the goal of encouraging them to consider Computer Science as a potential career. Duties included creating lectures, hands-on activities, leading class, and managing a 4 person staff.
- June 02 – March 02, **Teaching Assistant** (CSE 461) Introduction to Computer-Communication Networks.
- Jan 01 – June 01, **Teaching Assistant** (CSE 458 and CSE490ca) Computer Animation.

HONORS

- 2006 Best Student Paper Honorable Mention at UIST 2006
- 2006 UW SWE Outstanding Graduate Female Award
- 2001 – 2004 NSF Graduate Student Fellowship
- 2001 Henry L. Grey Memorial Fellowship
- 1997 – 2000 University of Michigan Honorary Engineering Scholarship

SERVICE

- 2007 Reviewer, Symposium on User Interface Software and Technology (UIST)
- 2007 Reviewer, International Journal on Information Processing and Management
- 2007 Program Committee member, Exploratory Search and HCI workshop
- 2006 Reviewer, Conference on Human Factors in Computing Systems (CHI)

- 2005 Reviewer, International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH)
- 2005 – 2006 Graduate student seminar organizer
- 2004 – 2006 Graduate student mentor
- 2003 – 2005 Mentor in Making Connections: mentoring program for high school students from underrepresented minorities and socioeconomically disadvantaged homes
- 2002 – 2003 TGIF Coordinator, University of Washington, CSE