

Erin Marie Panttaja

<http://web.mit.edu/~erinp>

<http://playwrightinthesecondrow.wordpress.com/>

Objective A role as an interaction designer, inventor, human computer interface creator, puppetmaster, writer, playwright, or commentator, creating new content for entertainment, education, and the elucidation of our world.

Professional Profile I am an interaction designer and creative team lead. I like making complex functionality easy to use. I have experience designing, managing, and building projects ranging from video games that train communication and collaboration skills, to voice-controlled personal assistants, to interactive theater pieces. I have worked with users, artists, and engineers to create innovative and compelling experiences for a wide variety of users.

General Skills *Skills:* Game Design, User Experience Design, Voice User Interface Design, Project Management, Storytelling, Playwriting, Puppetmastering, Grant Writing, Patent Writing, Editing

Programming Languages: Java, LaTeX, Perl, Eclipse, Python, Django, SQL, XML, and CVS

Languages: Spanish (conversational), Arabic (basic)

Software/UI design **BBN Technologies** Cambridge, MA
Scientist July 2006 – July 2008

- Designed a plot structure and custom instrumented web portal for a one-month Alternate Reality Game-based training for over 100 Joint Forces staff members and students, with a team of seven. Led the four-person technical team to build software in Django, Python, and MySQL.
- Designed and implemented stories, scenarios, and puzzles for a collection of collaborative and single-player puzzle games based in 3D RPG Neverwinter Nights.
- Transcribed and analyzed conversations to generate speech models of trainee communication in military convoys in DARWARS! Ambush.
- Developed improved authoring tools for Navy training targeted at improving readiness for 40,000 recruits annually. Prototyped system using Java in Eclipse. Published paper in I/ITSEC 2008.
- Ran a pilot program creating customizable artificial characters for game-based training.

Operation Kalpataru Cambridge, MA
Consultant June 2006 – July 2006

- Designed software user interface and developed project management plans for software running on inexpensive laptops to improve the effectiveness and sustainability of microfinance in Bangladesh.

Animated Speech Corporation San Francisco, CA
Consultant May 2005 – January 2006

- Created experimental protocols and wrote product plans for a learning tool using views of an animated head to teach articulation, vocabulary, and narrative skills to deaf, autistic, hard of hearing, and speech-impaired children.

Media Lab Europe
Research Associate

Dublin, Ireland
September 2003 – September 2004

- Created multimodal user interfaces for desktop and mobile devices for use by blind and deaf users in multiple languages as part of an European Union-supported project on spoken user interfaces. (FASiL) Published and presented papers on the FASiL UI at COLING 2004 and HLT/NAACL-04.
- Created an interactive DVD of a theater workshop, including scene selection, audio track overlay, editing, DVD design, and technical production. Mentored theater artists on using technology in performance.

Comverse Network Systems (formerly InTouch Systems)
Software Engineer, Consultant

Cambridge, MA
August 1998 – January 2003

- Designed and implemented voice user interfaces for telephone-based personal assistants with voice dialing, message management, to do lists, calendars, and caller interfaces, including the Sprint PCS Voice Command feature available to 40 million subscribers.
- Created and managed the nine-person Language Group, which created designs, prototypes, and deliverable voice user interfaces in five languages.
- Developed a corporate patent portfolio of voice and messaging features. Named inventor on two issued patents. Consultant on five additional issued patents and numerous patents still in process. Published paper in the International Journal of Speech Technology.

MIT Media Lab
Research Associate, Teaching Assistant

Cambridge, MA
June 1996 – June 1998

- Collaborated on *Gandalf* and *REA*, conversational characters who interacted with users via speech, intonation, and gesture to talk about shared presence in a virtual world (a tour of the solar system and of various houses, respectively).
- System design and Java coding of CrossTalk, a tabletop-sized multi-user wooden keyboard for public social interaction, and other parts of the Literary Salon. Crosstalk was exhibited in SIGGRAPH 1999.

MIT Experimental Studies Group
Undergraduate Researcher

Cambridge, MA
September 1994 – June 1995

Taught a freshman seminar in Lego robotics.

MIT Artificial Intelligence Lab
Undergraduate Researcher

Cambridge, MA
September 1994 – June 1996

- Built and tested brain circuitry for Cog, a humanoid robot.

PCG, Inc.
Software Engineer

San Francisco, CA
1990 – 1995

- Designed and developed a client server database application for tracking students, test scores, and English proficiency, in PowerBuilder, C and Sybase SQL Server.

Theater

Magic Theatre San Francisco, CA
Reader Read new plays as part of the the Literary Committee. June 2009 –

Playwrights Foundation San Francisco, CA
Rehearsal Assistant Read stage notes for a staged reading of *Natasha and the Coat*. May, 2009

BBN Technologies Cambridge, MA
Puppetmaster August 2007 – January 2007
 Devised, as part of a team of puppetmasters, a story line for *Dark Waters*, a month-long disaster scenario event. Performed several roles over the course of the event.

Theatre @ First Somerville, MA
Stage manager George Bernard Shaw's *Arms and the Man*. January 2007 – March 2007

The Lyric Stage Company Boston, MA
Reader Evaluated plays for the Growing Voices new work development program. November 2005 – June 2006

Twisted Christmas Live 3! Santa Rosa, CA
Writer Story, **The Krampus**, performed by Debbie Durst. It was later broadcast on KRCB 91.1 FM. December 10, 2005

New Works Festival Ukiah, CA
Playwright *Conflict: Make it didn't happen* was selected and performed at the Mendocino College Theatre Arts Department's Third Annual Festival of New Plays. May 2005

Dublin Fringe Festival Dublin, Ireland
Technical Crew Worked tech for Loose Canon's production *h*, including sound and lighting effects. October 2004

Mór Festival Tullamore, Ireland
Artist Performed in a production of Jeff Gormly's participatory play "3some." Constructed, with the rest of the cast, the Imaaginaarium, the site-specific shelter in which we performed. August 2004

Dublin Fringe Festival Thread Workshop Annaghmakerrig, Ireland
Artist Invited participant in a workshop on new uses of text in theater, with Jocelyn Clarke, John Collins, Michael Lew, and Steve Valk. Wrote a pair of one-act plays: *Conflict: On waiting*, *Make it didn't happen*. The plays were selected for a staged reading. Devised other pieces, and as a technical crew member and video artist. Produced a DVD of workshop highlights. 18 April – 2 May, 2004

Dance Complex Cambridge, MA
Workstudy, House Manager Balanced daily books. Managed front of house. 2002 – 2003

MIT Media Lab Cambridge, MA
Research Associate Devised and programed an interactive sculpture with the Literary Salon team that was accepted in SIGGRAPH 1999.

MIT Theater Cambridge, MA

Performed various roles in Dylan Thomas' *Under Milk Wood*, Susan in Dramashop's production of Joseph E. Bondaryk's *Summer People*.

Other Work

Red Cross Volunteer

California, Massachusetts, Texas
January 2005 – present

Participated in disaster response for hurricanes Katrina and Rita in Orange, Texas. Interacted with county government, managed staffing, logistics, and established and ran a shelter. Provided services in English and Spanish to affected families. Responded to local fires in Sonoma County, California and flooding in Eastern Massachusetts.

Thomson Family Adventures Mentor

Watertown, MA
2005

Provided activities for children ages 7-16 traveling to Belize and China.

Horizons Initiative Playspace Activity Leader

Cambridge, MA
1998 – 2001

Organized activities for children ages 3-12 in a homeless shelter, helped with homework.

Publications

Alice Leung, William Ferguson, Bruce Roberts, Erin Panttaja, Shawn Weil, Alexandra Geyer, Paul Picciano. "Alternate Reality Game (ARG)-Inspired Training for Staff-Level Skills." *The Interservice/Industry Training, Simulation & Education Conference (IITSEC)*, 2008.

Erin Panttaja. "Method and system for pronoun disambiguation." U.S. Patent No. 7,085,709. Washington, DC: U.S. Patent and Trademark Office, 2006.

Lawrence Denenberg, Christopher Schmandt, and Erin Panttaja. "Automatic dynamic speech recognition vocabulary based on external sources of information." U.S. Patent No. 6,937,986. Washington, DC: U.S. Patent and Trademark Office, 2005.

Erin Panttaja, David Reitter, and Fred Cummins. "The evaluation of adaptable multimodal system outputs." In *Proceedings of the Workshop on Robust and Adaptive Information Processing for Mobile Speech Interfaces*, at the 20th International Conference on Computational Linguistics (COLING), 2004.

David Reitter, Erin Panttaja, and Fred Cummins. "UI on the fly: Generating a multimodal user interface." In *Proceedings of Human Language Technology conference 2004 / North American chapter of the Association for Computational Linguistics (HLT/NAACL-04)*, 2004.

Erica Goldman, Erin Panttaja, Andy Wojcikowski, and Robert Braudes. "Voice Portals – Where Theory Meets Practice." *International Journal of Speech Technology*, July 2001.

Justine Cassell, Erin Panttaja, Sola Grantham, and Kimiko Ryokai. "CrossTalk." *SIG-GRAPH 99 catalog on Electronic art and animation. Los Angeles, CA.* .

Writing for performance

Conflict

A pair of linked ten-minute plays in which three characters experience and revisit a tragedy which influenced all of their lives. (ten-minute play)

Staged reading, May 2004, Annaghmakerrig, Ireland.

College production, May 2005, Mendocino College Theatre Arts Department's Third Annual Festival of New Plays, Mendocino College Little Theater.

Clockwork Bird

An exploration of the life of Ada Lovelace, daughter of Lord Byron and the first computer programmer. (full-length play)

Tangled Weeds

Two friends talk and fight about their different ways of handling the ennui in their lives. (one-act)

The Krampus

Instead of getting candy from Saint Nicholas, a little boy is carried off to Spain by the Krampus. (short story)

Story reading, December 2005, Twisted Christmas Live 3! Santa Rosa, CA. Read by Debbie Durst.

Radio broadcast, December, 2005. KRCB 91.1FM.

Katya's Opuscle

A woman chooses between accepting the role she is given and finding her own new path through storytelling.

Shades of Pale

A monologue of a man's fight with his dying wife.

Around the World

What happens when a man wants to break up his European vacation with his girlfriend... for a trip to Amsterdam?

Education**Massachusetts Institute of Technology**

Cambridge, MA

M.Eng. in Electrical Engineering and Computer Science, June 1998

Thesis: Recognizing Intonational Patterns in English Speech

B.S. in Electrical Engineering and Computer Science, June 1998

Coursework: Storytelling and Games in the Digital Age, sponsored by Sony Pictures Imageworks and MIT Comparative Media Studies, January 2005, Computer Graphics, Discourse.

Grub Street Writers

Somerville, MA

Coursework: Fiction, screenwriting, and playwriting workshops. The Muse and the Marketplace Writers' Conference.

Harvard Extension School

Cambridge, MA

Coursework: Elementary Modern Standard Arabic 1 (a and b)

Pacific Arabic Resources

San Francisco, CA

Coursework: Arabic 3, Arabic 3 Conversation, Arabic 4, Arabic 5

Personal

I love stories: the stories I heard from people when I was running a Red Cross shelter after hurricane Katrina; the stories I tell about users of the software I design; the stories I've enabled as technical run crew for shows; and the stories I make up as I write children's books and plays. I want to use my background in technology to tell stories, and help make it easier for others to tell their stories.

Eligible for Department of Defense Clearance

Selected projects and publications available at <http://web.mit.edu/~erinp>