

Seema Patel

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Objective

Programmer and psychologist seeks a full-time job working as part of an interdisciplinary team developing interactive, entertaining technology and experiences.

Education

Carnegie Mellon University: Master's of Entertainment Technology, May 2006

A specialized, interdisciplinary degree jointly conferred by the College of Fine Arts and the School of Computer Science which focuses on the research and development of entertainment experiences made possible by the advent of primarily computer-mediated digital technologies.

University of South Florida: Master's of Computer Science, May 2004

Harvey Mudd College: Bachelor of Science in Physics and Bachelor of Science in Psychology, May 2002
Graduated with Honors in Humanities and Social Sciences

Interdisciplinary Group Project Work

Interbots Initiative, Carnegie Mellon University. Spring 2005.

Worked in a ten-person team to design and create a portable, interactive animatronic character and engaging, entertaining experiences with that character. Work was accepted to SIGGRAPH 2005's Emerging Technologies Exhibition. Personal contribution involved managing the business and legal aspects of the project (including the negotiation of a licensing agreement), technical writing and documentation, and assisting with the fabrication of mechanical parts. Also gave a 20-minute talk at SIGGRAPH 2005 and at the 2005 International Conference in Advances in Computer Entertainment Technology.

Building Virtual Worlds, Carnegie Mellon University. Fall 2004.

Worked in four-person teams to design and construct five separate interactive experiences in two-week cycles utilizing various multimedia platforms including virtual reality headmount displays, a Sony AIBO dog, and an animatronic character. Contribution focused on texture map painting, writing, costume design and costume fabrication.

Human-Computer Interfaces, University of South Florida. Spring 2004.

Designed user interfaces in two-person teams for a voice-activated web browser and a remote virtual classroom. Constructed storyboard prototypes for each interface in two weeks using Photoshop and Flash.

Robotics Development Team, Harvey Mudd College. August 2001 – May 2002.

Wrote custom software in a three-person team for a Pioneer robot that enabled it to autonomously navigate a complex system of hallways to locate and retrieve Coca-Cola cans.

Work Experience

Walt Disney Imagineering Research & Development

Glendale, California

Intern

September – December 2005

- Worked in a team to design and prototype interactive attractions for a new theme park adventure game.
- Contribution included programming (in C), wiring and mounting lasers, game design documentation, creating costumes for animatronics, prop procurement, and set dressing.

Crystal Dynamics

Menlo Park, California

Production Intern

Summer 2005

- Worked in a four-person team on the concept development and pitch of a new title.
- Developed schedules using Microsoft Project, workflows using Microsoft Visio, and conducted data acquisition and analysis using Microsoft Excel.

Vivendi Universal Games

Los Angeles, California

- QA Game Tester for *Crash: Twinsanity* on the PS2 and Xbox consoles.

Quality Assurance Game Tester

Summer 2004

Center for Robot-Assisted Search and Rescue

University of South Florida, Tampa, Florida

- Research focused on implementing a formal cognitive model of emotions on two heterogeneous robots cooperating on a resupply task.
- Designed a color-based interface for expressing a robot's emotional state. Used electro-luminescent wire to construct a proof-of-concept prototype of the interface.

Research Assistant

August 2002– October 2003

Harvey Mudd College

Department of Engineering, Claremont, California

- Used CAD tools to design a controller for a planetary rover that determined the rover's ideal velocity through the use of emotion.

Research Assistant

Summer 2001

NASA Jet Propulsion Laboratory

Department of Geophysics and Planetary Geosciences, Pasadena, California

- Used Mars Orbiter Camera images and Mars Orbiter Laser Altimeter data to conduct a geologic survey of Martian tectonic features.

Research Intern

Summer 2000

Smithsonian National Air and Space Museum

Department of Space History, Washington D.C.

- Designed and constructed a website for the Department of Space History.
- Assisted in image processing for the Apollo 11 30th Anniversary website.

Intern

Summer 1999

Selected Publications

S. Haskell, A. Hosmer, E. Leu, P. Stepniewicz, S. Zayat, J. Zhu, S. Patel, and B. Harger. *An Extensible Platform for Interactive, Entertaining Social Experiences with an Animatronic Character*. Proceedings of the ACM SIGCHI International Conference on Advances in Computer Entertainment Technology, ACE 2005.

Howell, W., Patel, S., and Minten, B. *UDP Performance Over an Ad Hoc Network for Mobile Robotics*. Proceedings of the 2004 International Conference on Wireless Networks.

Skills

Proficient in C++, C, Java, HTML, and LaTeX

Experienced with Mac OS, Windows, Linux, and UNIX

Skilled with Adobe Photoshop, Adobe Illustrator, and Adobe Pagemaker

Experienced with Microsoft Excel, Microsoft Powerpoint, Microsoft Visio, and Microsoft Project

Activities

Member of the CMU Graduate Student Council and the ETC Student Council ('04-'05)

Co-President of the HMC Chapter of the Society of Women Engineers ('99– '01)

Member of HMC Student Council ('00– '01)

HMC Yearbook editor ('99– '02)

Bass Clarinetist in various ensembles for ten years

Awards

University of South Florida Presidential Doctoral Fellow (August 2002 – August 2004)

Watson Fellow Nominee (2001)

Dean's List, Harvey Mudd College
