

SAMANTHA RAJA

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EDUCATION

University of Pennsylvania, Philadelphia, PA
Candidate for Master of Science in Engineering May 2011
Major: Computer Graphics and Game Technology
Bachelor of Science in Engineering May 2010
Major: Digital Media Design Minor: Consumer Psychology

Relevant Coursework

Technical: Programming Languages and Techniques I & II, Computer Animation
Intro to Computer Graphics, Computer Graphics Programming
Physically Based Animation, Adv. Topics in Computer Graphics
Computer Architecture, Game Design and Development
Art: Figure Drawing I & II, 3D Modeling, Digital Figure Modeling, Computer Animation
Adv. Topics in Animation, Visual Communication, Concepts of Lighting

Notable Projects

Raytracer with photon mapping (C++), Inextensible cloth simulation (C++)
Rigid body simulator (C++), Hair simulation (C++), Curve editor (C++)
Fruit decay simulation tool (C++, Maya API, MEL)

SKILLS

Programming/Scripting Digital Media

C++, C, Java, C#, Python, MEL
Autodesk Maya, Autodesk 3D Studio Max, ZBrush, Adobe Photoshop,
Adobe Premiere, Adobe AfterEffects

Software Operating Systems Computer Skills

Microsoft Office Suite
Apple Macintosh, Microsoft Windows, Linux
MySQL, OpenGL, FLTK

RESEARCH

Fruit Senescence and Decay Spring/Summer 2010

Created a physically based simulation of the decomposition of fruit, including
fungal and bacterial infection and volume collapse due to water loss. Designed
an accompanying Maya plug-in tool that enables artists to input a fruit mesh,
seed points for mold growth, and various surface and environmental parameters
to direct the decay process. Under the direction of Dr. Norman Badler.

EXPERIENCE

Palma VFX San Francisco, CA

Technical Director Intern Jun 2009-Aug 2009
Set up shaders and lighting for scenes, and created cloth effects for character
clothing using Maya
Wrote MEL scripts and Maya expressions to automate various tasks
Assisted in modeling, texturing, and animating characters and environment elements

University of Pennsylvania Philadelphia, PA

Animator Fall 2008-Spring 2009
Created animations for an interactive Air Force training program
Applied motion capture data to an existing character rig in 3D Studio Max

Ciritech Systems Milpitas, CA

QA Engineer, Graphic Designer Summer 2008
Coordinated and conducted testing of Element Management System software,
as well as performance testing of network hardware and equipment
Worked with an overseas team to integrate software components of the system
Created and edited graphics for the company's user manual and various promotional
material

ACTIVITIES

Penn Latin and Ballroom Dance

Secretary Fall 2008-Spring 2009
Maintained team member list, took minutes at board meetings

Treasurer Fall 2007-Spring 2008
Oversaw and recorded spending, collected dues, managed funding from school