NEELIMA KARANAM

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OBJECTIVE

Seeking visual effects technical director opportunity that utilizes my skills in problem solving, computer graphics & animation techniques and 3-D graphics applications

EDUCATION

M.S. Computer Science and Engineering — GPA: 3.62 (4.00 scale)
Ohio State University Columbus, OH — December 2010 (*expected*)
Major - Computer Graphics and Animation

B. Tech. Computer Science and Engineering — First Class with Distinction
JN Technological University, Hyderabad, India — May 2007
Major - Software Engineering

SKILLS

Coursework:

Computer Animation: Algorithms and Techniques
Procedural Animation using Maya and Houdini
Object Oriented Programming - Java
Principles of Programming Languages
Software Engineering
3-D Image Generation
Ray tracing
Operating Systems

Programming Languages:
Proficient in C, C++, Java, JavaScript, OpenGL, GLSL, MEL, HTML; familiar with Python

Software Tools: Autodesk Maya, Side Effects Houdini, MS Visual Studio, MATLAB, Vicon iQ, Autodesk MotionBuilder, Adobe Dreamweaver and Adobe After Affects

Operating System Platforms: MS Windows, MS-DOS, UNIX

Application Server: Tomcat

Database Management System: Oracle 9i

Personal Skills: Effective communication skills; Strong team player; Quick learner.

EXPERIENCE

Ohio State University, Columbus, OH

Graduate Research Associate (Oct 2008 to Present)
- Presented demonstrations on ACCAD's motion capture system for tours and visitors
- Conducted motion capture sessions for students, faculty, staff and visiting artists
- Created documentation and simple examples that illustrate how to use the motion capture equipment, and how the generated data can be processed and used in other softwares such as MotionBuilder and Maya
- Assisted students taking the Motion Capture course at ACCAD in capturing and cleaning motion capture data

Digital Animation Mentor (Jun - Jul 2008)
- Supervised a group of three high school girls in making a short 3-D animation in Maya from concept development through final production

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Graduate Research Associate (Apr - Jun 2008)
- Programmed for real time interactive graphics to visualize the choreographic structure from dance to data, in William Forsythe's "One Flat Thing, reproduced."
- Programmed to retrieve data from FileMaker Pro database and format it, so it can easily be read by a Flash program in the next stage of the pipeline

Multimedia Student Assistant (Oct - Dec 2007)
- Developed a website aimed at providing multimedia tutorials to students
- Assisted students with multimedia questions

PROJECT EXPERIENCE

Masters Project - Interactive Character Movement Modification (Mar 2008 to Present)
Motion captured the gait of several people, male and female, between the ages 20 and 70, and analyzed it using principal component analysis with the intention of developing a system that enables an animator to modify the style of a human character gait by changing a few high level parameters such as age, gender, stride length, etc. We determined that the PCA dimensions alone do not provide intuitive control over the aforementioned parameters.

Fluid Dynamics Project – Houdini Procedural Animation (Aug 2009)
Created the effect of water putting out the flames using volume operators and multi-solvers over the course of three days.

The Attic Project (Sept - Dec 2008)
Made a one minute 3-D animation, where a dark room is being explored with a flash light, using Maya. The project involved coming up with and developing the concept, modeling, lighting, shading, animating and rendering.

Strobila Escape Team Project - Maya Procedural Animation (Jan - Mar 2008)
Worked collaboratively with engineering and design students to make a 90-second 3-D animation.
- Responsibility: Simulate a paper vortex which chases the main character in the piece
- Wrote a MEL script that controlled particles in Maya to achieve the vortex effect
- Composed background score for the animation using Soundtrack Pro

Ray Tracer (Sep - Dec 2007)
Implemented a ray tracer, including illumination, texture mapping and distributed ray tracing, using C++. The program reads open inventor scene files, applies user specified features to the objects read and generates images. Received an Honorary Mention on the project.

Automated Courts (Feb - May 2007)
Designed, developed and documented enterprise software for judicial courts that provides a secure and user-friendly interface for information management.

ACTIVITIES & INTERESTS

- Guest lecture on Motion Capture for the course *Computer Vision for Human-Computer Interaction,* Nov 2009
- Volunteered at the OSU football stadium to raise funds for the student organization AID (Association for India's Development), Oct - Nov 2009
- Computer Lab Assistant - Assisted students with programming and software questions, JN Tech University, 2003 - 2007
- Editor of the college magazine, JN Tech University, 2004 - 2005
- Class representative for B. Tech students, JN Tech University, 2003 – 2007
- Organized and compered a two-day event celebrating the culture and tradition of India.