

BRIAN J. GIANFORCARO

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EDUCATION

Rochester Institute of Technology Rochester, NY

Major in Computer Science

Minor in Environmental Studies

Projected Graduation Date: Winter, 2011

D.W. Daniel High School Central, SC • 2006

Pickens County Enhanced Diploma

Language: German (3 years)

WORK HISTORY

Center for Computational Relativity and Gravitation - Rochester Institute Of Technology

(8/07 - 12/07)

Undergraduate

- Designed and developed 3D visualizations of various black hole characteristics and behaviors.
- Developed the visualizations on/using the home grown Java and OpenGL based, Spiegel visualization system.
- Various projects were being worked on a single CVS repository. Personal progress was isolated and tracked across multiple computers using a distributed Git repository containing the existing CVS environment.
- A select number of visualizations were featured on the History Channel series "The Universe", specifically the cosmic holes episode.

Center for Advanced Engineering Fibers and Films - Clemson University (6/07 - 9/07)

Undergraduate Research Developer

- Designed visually accurate models of three different polymer extrusion process's using OpenGL and C.
- Enhanced a web application written in PHP that manages and displays experimental polymer data.
- Created artistic renderings of polymers at the molecular level with Blender 3D.
- To support this work a "render farm" like system for use with Blender was developed. It was based around the Condor High Throughput Computing Project.
- This work was presented for input to a group of polymer research students and professor from Caltech, MIT and a variety of other institutions.
- The Condor work was presented by my colleague to the public at SC07, The International Conference for High Performance Computing, Networking, Storage and Analysis.

Center for Advanced Engineering Fibers and Films - Clemson University (6/06 - 9/06)

Intern Programmer

- Developed an application to analyze and visualize large XML based data files.
- Data was computed from experimental parameters for new types of polymers.
- Development was conducted using Python, pyOpenGL and the wxPython GUI library.
- A paper discussing our progress, methodology and results was submitted to the "Journal of Young Investigators".

Center for Advanced Engineering Fibers and Films - Clemson University (6/05 - 9/05)

Intern Programmer

- Developed an application to visualize text based data files.
- Development was conducted with C and OpenGL, GLU, GLUT.

Center for Advanced Engineering Fibers and Films - Clemson University (6/04 - 9/04)

Intern Programmer

- Developed a graphical front end to enter and manage experimental polymer data in a MySQL database.
- Enhanced a web based front end, by increasing browser support.
- Designed a new layout for a relational database, to represent the experimental polymer data.

Newton Computers - Central, SC (4/04 - 5/04)

Consultant

- Reviewed the top open source, web based, project management solutions for Newton Computers.
- Decided on the most feature rich and usable, set up a working demo for the customer to test.

SKILLS

- Proficiency in software development in Java, Python, C, C++, and PHP.
- Familiarity with SQL, C#, JavaScript, XML, HTML, CSS, L^AT_EX.
- Familiar with Linux, FreeBSD, OpenBSD, Mac OS X, and Windows (XP, 2000, 98) based systems.
- Familiar with configuring and using Apache, MySQL, SSH, Samba, Subversion, and Git.

ACTIVITIES AND PROJECTS

- Developed a full fledged calendar and appointment management application in Java for a Software Engineering course. It utilized the Substance library, SwingX widgets as well as JUnit for testing.
- Developed a CVS/RCS repository viewer in Python.
- Wrote a Python based web Content Management System using MySQL as a back end.
- Developed a simple image viewing program in Python and OpenGL.
- Avid snow boarder, Ultimate Frisbee player and Outdoors man.
- Have been playing the 5 String Banjo, Violin, Mandolin, and Electric Bass for a number of years.