

Paul Solt

PaulSolt@gmail.com
http://www.paulsolt.com

OBJECTIVE

To inspire others with interactive graphics application development. Available February 2011.

SUMMARY

- Computer Science co-op experiences with Microsoft and Apple.
- Proficient with C/C++, C#, Python, OpenGL, XNA, iPhone, and object oriented software design.
- Motivated, organized, detail oriented, dependable.

EDUCATION

Bachelor and Master of Science in Computer Science, expected February 2010

GPA: 3.9/4.0

Minor: **Spanish Language**

Rochester Institute of Technology, Rochester, NY

Courses: Computer Graphics I/II, Procedural Shading, 2D/3D Graphics Programming, Theory of Computer Algorithms, Public Speaking, Software Engineering I/II, Computer Animation, Operating Systems, Genetic Algorithms, Cryptography, 3D Modeling

Awards: RIT Outstanding Undergraduate Scholar 2007-2008, Alfred L. & Ruby C. Davis Leadership Scholarship, Dean's List 2004-2009, RIT Presidential and Merit Scholarships

COMPUTER SKILLS

Platforms: Windows, Mac OS X, UNIX, Game Boy Advance, iPhone, Windows Mobile 6.X

Development Software: Eclipse, Visual Studio, Xcode, VIM, SVN, git

Software: Photoshop, Maya

Languages: C/C++ (5 years), C# (3 years), Python (2 years), Objective-C (2 years), Java, GLSL, RenderMan, Ruby

APIs: iOS, Cocoa, OpenGL, XNA, DirectX, POSIX, Rails, .NET, WinForms

PROJECTS

- **Artwork Evolution** - Created a genetic programming application that can create genetic art. The evolution system was designed in C++ and a user interface was developed in Objective-C for iPad and iPhone. The system enables users to collaborate, share, and evolve artwork in a mobile environment. A poster on the project was accepted to SIGGRAPH 2010 in Los Angeles, California.
- **Impulse** - Built a 2D physics-based game using XNA and C# in a team environment. I designed the special effects and used WinForms to create a level editor. Impulse was featured at the Penny Arcade Expo's top 10 game competition (PAX 10) in 2008.
- **Labyrinth** - Designed a multiplayer 2D game in Python for the RIT Computer Science Department based on Ravensburger's Labyrinth board game. The game used an animation system to provide visual game play feedback. First-year computer science students developed the artificial intelligence as a class project and competed in a tournament.
- **Animation System** - Developed a key framing and dynamic physics animation system using OpenGL and C++. The system used quaternions for angular motion and simulated pool balls colliding on a pool table with impulse forces.
- **Ray Tracer** - Designed and programmed a ray tracer that supported reflection, refraction, procedural shading, shadows, phong shading, and multi-sampling. Photon mapping, a global illumination model, was used to enhance the 3D renders. The ray tracer was created using OpenGL and C++.
- **Procedural Shading** - Programmed surface and volume shaders in GLSL and RenderMan. The shaders were used to create bump mapping, phong shading, smoke, floor tiles, and shaped light sources.

- **Network Simulation** - Created a network simulation to test multi-path packet re-routing and packet dropping in a congested network using Java.
- **Planetpaluza** - Developed a particle system to create special effects for a 3D planet building game on a team project. The game supported real-time terrain deformation using XNA and C#.
- **Graphics Library** - Implemented 2D graphics routines to draw lines, polygons, and fill polygons. The graphics library was designed for the Game Boy Advance using C.
- **Secure Database Web Application** - Worked in a team to secure an Oracle database with a website developed using Ruby on Rails. Performed security assessment of student web applications.
- **Robot Remote** - Created a robot remote control application on iPhone using the open source robotic Player/Stage framework. The remote control works over Wi-Fi and was written in Objective-C and C++.

WORK EXPERIENCE

Microsoft Corporation, Seattle, WA

Software Developer in Test, June 2009 – August 2009

- Developed and implemented the testing plan for the location features in My Phone, a Windows Mobile 6.X application.
- Tested My Phone features before it was deployed on multiple Windows Mobile devices.
- Created and supported a Windows Mobile 6.X test tool that was used worldwide to gather location data.
- Worked with remote teams to ensure location accuracy.

Apple Inc., Cupertino, CA

Software Developer, June 2008 – August 2008

- Worked on the OpenGL Desktop Software team that supported the OpenGL graphics for Mac computers.
- Enhanced the OpenGL server-based testing system to enable pre-check-in testing on local developer machines.

Rochester Institute of Technology, Rochester, NY

Computer Science Grader, September 2008 – Present

- Graded computer science labs, projects, and developed course projects.

Computer Science Supplemental Instructor, September 2009 – February 2010

- Hosted review sessions for computer science lectures.

Orientation Assistant, August 2007 – September 2007 and September 2009

- Lead a group of freshmen around campus during Orientation Week.

Computer Science Student Lab Instructor, December 2005 – May 2008

- Taught and graded computer science labs.

LEADERSHIP

- President, Computer Science Community, 2008 – 2010
- Student Government Senator, College of Computing, 2007 – 2008
- Vice President and Founder, Game Developers Club, 2006 – 2008