Keith C. Simmons

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e-mail: ksimmons@gmail.com **blog:** http://ksimmulator.com **portfolio:** http://ITartist.com

Education:

Rochester Institute of Technology, *Rochester, NY*

Bachelor of Science in Information Technology, December 2005

Concentrations in Web Site Development, Interactive Multimedia Development, and System Administration.

Minor in Applied Communication.

Skills:

3D Design, Modeling, Animation: Blender 3D, Google Sketchup, Autodesk 3DS Max & Maya
Graphic Design/Vector Illustration: Adobe Illustrator & Photoshop, Inkscape
2D/3D Digital Fabrication: Laser cutting wood, steel, & acrylics; 3D printing in plastics and metals
Interactive Programming: Processing, openFrameworks, Flash/Actionscript, Macromedia Director
Server Side Web Programming: Ruby on Rails, PHP w/ PEAR, SQL, Perl/CGI, Java
Multimedia for Web: Adobe Illustrator, Flash, & Photoshop CS5; XHTML, CSS, Javascript, jQuery
Electronics and Microcontrollers: Arduino, Eagle for board design, lights & sensors
Video & Photography: Adobe Premier, After Effects & Photoshop CS5; HDR Photography
Audio & Music Recording: Ardour, Garage Band, Audacity
Workshop Design & Execution: 4-12th Grade, Adult
System Administration: Host Based Security, Apache, Database, Scripting, Linux, Windows
Object Oriented Software Design: MVC for web in RoR, Actionscript, Processing, and Java

Recent Volunteering:

Laser scanning sculpture reduction and fabrication at the Chapel of Sacred Mirrors, June 2011
Volunteer photography at the Sprout hackerspace in Somerville, February - June 2011
Hosted Blender 3D workshop at DINO Studios for Unity3D Integration, May 2011
Volunteered in the Learn to Solder tent at the Bay Area Maker Faire, May 21 & 22, 2011

Taught drop-in participants how to solder small electronic badges with 6 connections.
Ages 4½ – Adult, roughly 2500 participants.

Assisted Artist Robyn Neill-Quan in laser cutting symbols for Art Show, March 11, 2011
Assisted Jimmie Rodgers in Circuit Bending Workshop at Music Hack Day Boston, October 16, 2010
Volunteered in the Learn to Solder tent at the World Maker Faire NY, September 25 & 26, 2010
Hosted a digital gardening workshop through Sprout at the MIT Museum, May 8, 2010

Participants soldered RBBB arduinos and connected them to homemade soil moisture sensors

Work Experience:

Sacred Geometry Designs & Consulting (Spring 2011 - Current) *Somerville, MA*

Created a digital fabrication consulting and design business. Designed digitally fabricated art & jewelry in Blender 3D and Adobe Illustrator which is currently being sold online through a print-on-demand business model. Currently working with artists on projects involving 3D laser scanning, sculpture enlargement/reduction, 3D printing, and large scale laser & water jet cutting.

<http://sacredamulets.com/>

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Technology Manager for the Intel Computer Clubhouse Network at the Museum of Science (Spring 2008 – Winter 2011) *Boston, MA*

Hosted workshops and demonstrations for coordinators and youth in 3D modeling (Blender 3D and SketchUp), augmented reality, web programming, soldering/circuit building, and free software tools. Coordinated technology for events of up to 300 youth and our conferences for adult coordinators. Designed and maintained static and drupal based websites. Administrated three ubuntu linux servers and one windows server running web, database, file sharing, and monitoring services. Developed new features for and maintained Ruby on Rails application that allows Clubhouse youth to share artwork internationally. Worked with team to convert our static website to drupal. Programmed custom PHP widgets to integrate drupal with our database. Upgraded server hardware and software to meet external auditing requirements. Automated mailings and developed new database queries. Provided support to 100 Computer Clubhouses around the world serving youth ages 10-18.

<http://www.computerclubhouse.org/>

Lab Manager at the Interactive Collaboration Environment @ RIT (Fall 2007 – Winter 2008) *Rochester, NY*

Setup and maintained real time collaboration points on campus running Access Grid on both Linux and Windows. Researched open source technology and technology for purchasing. Designed promotional material for the lab and specific events in Adobe Illustrator. Wrote scripts to create a web-streamable video library from the Access Grid format using free tools. Supervised two student interns.

<http://rc.rit.edu/ice.html>

Taught Rochester Digital Ripple Phase 2 (Summer 2007) *Rochester, NY*

Taught the Rochester Digital Ripple curriculum that I co-wrote and executed one year prior (See summer 2006). Our organization partnered with Art Peace and in collaborated with the South Wedge Planning Committee, RIT's Lab for Technological Literacy, and other organizations to make this second phase another success. The second phase was designed to provide free wireless access to the South Wedge area through Rochester city school students' efforts.

<http://RochesterDigitalRipple.com/>

Education Coordinator for RASA Japanese Culture Project (Spring 2007) *Rochester, NY*

Configured and setup a wiki for a massive collaboration between 16 Rochester city schools involving students in grades 4-12. I taught origami during the RASA after school program in a successful distributed effort to fold 1,000 cranes. I also taught computer skills and wiki technology to the students and coordinators. Using Adobe Illustrator and my photography, I designed posters, invitations, and certificates for project marketing.

<http://itartist.com/hamamatsu/>

Planetarium, RMSC, R.I.T. (Winter 2007) *Rochester, NY*

Prototyped and developed several interactive projection setups for upgrading the planetarium projection system. Working with professor Jonathan Schull in teaching students from his "Interface Design" course Winter quarter to use the projection platform.

DigitalXtractions Inc. IT Manager, Website, Marketing, Animation (Fall - Winter 2006) *Rochester, NY*

Created a website and web interfaces as IT Manager. Collaborated with a software engineer and developer in a Sun Java Application Server environment. Maintained linux and solaris servers. Designed fliers and other promotional printed material. Created a 3D animation using blender that plays on stand-alone LCD photo viewers.
<http://digitalXtractions.net/>

Caroline Werner Gannett Project: 3D Animation and Website (Summer 2006) *Rochester, NY*

Created a 3D animation using blender and a website for the Caroline Werner Gannett Project at RIT.
<http://www.cwgp.org/2006-07/>

Taught the Rochester Digital Ripple Project (Spring - Summer 2006) *Rochester, NY*

Designed, taught, and executed an art and technology curriculum with Robyn Neill and Eric Grace for building free municipal wireless networks with city high-school youths. The program started on July 5th and lasted through August 16th. I designed a custom OLSR wireless mesh network with central authentication, user tracking, and transparent proxy filtering that was implemented by 7th through 12th grade students. The project culminated in approximately one square mile of free Internet coverage around the Edgerton Community Center. Partners included RASA, Frontier, City of Rochester's bureaus of Water, Street Lighting, Infosystems, and RIT's lab for Technological Literacy. I also programmed the project website.

<http://RochesterDigitalRipple.com/>

<http://www.rit.edu/~930www/webnews/viewstory.php3?id=2021>

<http://www.democratandchronicle.com/apps/pbcs.dll/article?AID=/20060808/NEWS01/608080331>

Taught at Rochester Institute of Technology (Spring 2006) *Rochester, NY*

Worked with Eric Grace and Robyn Neill to assist professor Jonathan Schull in teaching the "Innovation and Invention in Information Technology" course spring quarter. Taught at Rochester School #36, YMCA, and RASA (Spring - Summer 2006) Rochester, NY Worked with Eric Grace and Robyn Neill to teach photo editing and vector illustration software to 4th through 6th graders in an international artistic digital collaboration with the School of the Nations in Macau, China. Students in Rochester traded images with students in China to create collaborative digital artwork.

<http://ITartist.com/tennis/>

C.O.N.E.C.T.S. Website (Winter 2005) *Rochester, NY*

I worked with artist Robyn Neill to create the C.O.N.E.C.T.S website in XHTML and CSS.

<http://itartist.com/prototypes/conects/>

Rochester After School Academy Website (Winter 2005) *Rochester, NY*

I worked with graphic designer Robyn Neill to create the RASA website in XHTML and CSS. The RASA website includes Macromedia Flash animations that I created from vector illustrations.

<http://itartist.com/prototypes/rasa/>

QuakeHelp.net (Fall 2005) *Rochester, NY*

Volunteered XHTML and CSS web site design, Apache, MySQL, and PHP web server configuration. Collaborated with Jonathan Schull from R.I.T. and A.J. Siegel to start the project.

<http://QuakeHelp.net/>

Rochester After School Academy Website (Summer 2005) *Rochester, NY*

I programmed a 3D interactive model in javascript to showcase a collaborative mural project. I designed and implemented a website including the 3D model, photo galleries, and information about the participants. <http://media.cityofrochester.gov/PRHS/RASA/index.html>

Corning Tropel, Inc. (Fall - Winter 2004) *Fairport, New York*

I designed, programmed, and deployed an internal payroll web database application in PHP using PEAR database and authentication libraries. The web site stored data in an existing MS Access database and allowed employees direct access to update timesheets. The site also interfaced with the company's existing Active Directory authentication system. Duties included system administration, user support for roughly 200 employees, system and network troubleshooting, and instructional presentations for my payroll software.