

# Gene S. Greger

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**Education**      **Cornell University, Program of Computer Graphics**, Ithaca, NY      August 1996  
M.S. Architectural Science (Computer Graphics)  
Minor in Historic Planning and Preservation

**Rensselaer Polytechnic Institute**, Troy, NY      May 1991  
Bachelor of Computer Science  
Concentrations in Computer Graphics and Electronic Art

**Experience**      **Software Engineer**      NYS Thruway Authority      February 2009 – Present  
Albany, NY

Part of a team charged with supporting the hardware and software systems used to process vehicular transactions on the Thruway's toll roads. Responsible for helping to develop, test, and debug lane software, which supports the manned and automatic entry and exit access points to the Thruway. Devices handled by this software include toll collector terminals, vehicle transponder (E-ZPass) readers, electronic signage, toll violation cameras, pavement induction loops, ticket processors, and receipt printers. Also tasked with migrating crucial legacy systems to C/C++ on Linux and designing and writing software for the Thruway's new toll Violation Enforcement System.

**Software Quality Engineer** Bespoke Inc.      October 2008 – January 2009  
Clifton Park, NY

Responsible for testing the company's main software product. Tasks included finding and reporting software defects and usability issues, tracking in-house and customer-reported issues, verifying software fixes, developing test cases, and proofreading documentation. Participated in feature reviews and planning for future releases. Researched, installed, and configured issue-tracking software for the company.

**UNIX Systems Admin.**      NYS Office of Children and Family Services      December 2000 - October 2007  
Albany, NY

Member of a three-person team responsible for maintaining HP and Linux development and production servers for several New York State statewide applications. Responsibilities included system backup and recovery, disk and printer management, user training, account setup, script writing, system analysis, planning, and troubleshooting, and Level III technical support. Participated in rotating on-call shifts. In charge of writing Perl scripts for the team to automate and simplify much of our administrative and maintenance workload. Script examples include generating disk and device layout charts, monitoring system resources, software and server startup and shutdown scripts, user account creation and password administration, generating Excel spreadsheets for management reports, monitoring scripts for OpenView and Tivoli, and processing and collating system data.

**Graphics Programmer**      RayTech Systems      January 2000 - June 2000  
Latham, NY      (contract position)

Wrote and co-designed a networked out-of-core particle tracer for visualizing large NASA datasets. Implemented client software to compute and interactively display the simulation data, and server software to respond to client requests for data. Compiled performance statistics and generated and ran benchmarking tests. The work was performed on a UNIX (SGI) workstation and written in C++; OpenGL was used to display the data, and the user interface was written using Tcl/Tk and GLUT to make the project portable to the Windows platform.

**Graphics Programmer**      STEP Tools Inc.      October 1996 - December 1999  
Troy, NY

Designed and implemented a graphics API in C++ to access and display product data, used internally and by the company's web-based data management product. Responsibilities included maintenance of current release and the planning and development of future releases, providing internal and external technical support, producing documentation, and source code control.

**Research Assistant**      Cornell University      Spring 1994 - Spring 1996  
Cornell Program of Computer Graphics

Designed and implemented a system to volumetrically represent light flow within an environment. Modeled 3D environments to test global illumination algorithms. Wrote interactive walk-through program to navigate rendered architectural scenes. Acquired and created textures for use in texture-mapped environments. Wrote software for conversion between 3D model formats.

**Teaching Assistant**      Cornell University      Fall 1993  
Cornell Program of Computer Graphics

Provided technical and educational support for architecture students working in the Program of Computer Graphics: customized UNIX accounts, wrote utilities and tutorials, ran and recorded animations onto videotape. Archived and retrieved data from storage media.

**Programmer**      Rensselaer Polytechnic Institute      May 1991 - May 1993  
Rensselaer Design Research Center

Maintained and supported the Center's in-house modeling and rendering software: added features, fixed bugs, wrote utilities, ported code, maintained documentation, created models for publication, rendered images, implemented volume reconstruction and texture-mapping algorithms.

**Computer Skills**

- Operating Systems:
  - HP-UX 10.20, 11.0, 11i
  - SUSE Enterprise Linux, openSUSE
  - Mac OS X 10.4, 10.5, 10.6
  - Windows 2000, XP
  - Solaris, AIX, IRIX
  - OS-9
- Languages:
  - C, C++, Perl, Tcl, KSH, HTML, REALbasic
- Open Source programs / utilities:
  - gcc, gdb, make, CVS, Subversion, valgrind
- Visualization and Graphical APIs and Toolkits:
  - GL, OpenGL, VTK, OpenInventor, Motif, Tk, Matrox Image Library
- Software Packages:
  - Photoshop, Final Cut Pro, Microsoft Office

**Certifications**      Apple Certified Help Desk Specialist (ACHDS)  
Red Cross CPR / AED training  
NYS Security Guard certification

**Publications**      J. Tourtellott, G. Greger, Internet-based out-of-core flow visualization, in *Visual Data Exploration and Analysis VIII*, Robert F. Erbacher, Philip C. Chen, Jonathan C. Roberts, Craig M. Wittenbrink, Matti Gröhn, Editors, Proceedings of SPIE Vol. 4302 (2001), pp. 23-34.

Greger, Shirley, Hubbard, Greenberg, The Irradiance Volume, *IEEE Computer Graphics and Applications*, March / April 1998.