

# Robert Heller

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## Computer Programmer / Linux System Administrator

Highly accomplished technology professional with broad experience in technical support, system administration, and process optimization in educational environment. Proven track record of effective systems operations and support demonstrated through hands-on development, and maintenance of network and software connectivity applications. Able to apply innovative ideas, to solve complex problems and satisfy project needs. Skilled technology expert; able to direct multiple tasks and quickly master new technologies.

### *Areas of Expertise*

- **Systems Implementation & Design**
- **Performance Optimization**
- **Troubleshooting & Problem Resolution**
- **Technical Mentoring**
- **Hardware/Software Purchase Evaluation**

### *Technical Proficiencies*

- **Platforms:** VAX/VMS, SunOS, Ultrix, Irix, Linux (Slackware 3.0, RedHat 4.0 though 9, WBL 3.0 (GPL Clone of RHEL 3.0)), True64.
- **Software:** ENVI, AutoCAD, KBVision, Khoros, various open source/FSF programs (compilers mostly).
- **Languages:** C, C++, Tcl/Tk, LISP, FORTRAN, BASIC, COBOL, Pascal, Java.

### *Professional Experience*

**Owner / Programmer** 12/1993–present Deepwoods Software Wendell, MA

Wrote several C/C++ and Tcl/Tk cross-platform applications for both my own use and as open source projects. Completed customized projects for customers.

- ◇ Created the Home Librarian system, first as a C++ coded command-line and terminal screen based system (Version 1) and later as a C++ and Tcl/Tk GUI based system for managing a home library of books and other materials. Version 3 is in the works, a nearly pure Tcl/Tk version using a SQL back end database system. (See <http://www.deepsoft.com/HomeLibrarian.>)
- ◇ Implemented the Role Playing Database system, a C++ and Tcl/Tk program designed to help “table-top” Role Playing gamers manage their not so trivial game information. (See <http://www.deepsoft.com/RolePlayingDB.>)
- ◇ Developed substantial parts of the Model Railroad System (still under active development), a collection of programs and libraries in a mixture of C/C++ and Tcl/Tk to aid model railroaders in various aspects of running their model railroads. (See <http://www.deepsoft.com/MRRSystem.>)
- ◇ Programmed Mylex-UI, a pair pure Tcl/Tk applications (one terminal based, the other graphically based) that interface with the DAC960 RAID Driver under Linux. (see [http://freshmeat.net/projects/mylexui/.](http://freshmeat.net/projects/mylexui/))

- ◇ Coded TkNewsII, a QWK/NNTP news and E-Mail client, written in Tcl/Tk with some C-coded support programs. (See <http://freshmeat.net/projects/tknewsii/>.)
- ◇ Created a Shopping Cart CGI script in Tcl connecting to PayPal for Celestine Press.

In addition, Deepwoods Software has provided programming on a contract basis:

- ◇ Did contract programming for Dr. Howard Schultz of the Computer Vision Research Lab (in the CS Dept. at Umass/Amherst) in C and Tcl/Tk for his Terrest Project from 1/2006 through 12/2006.
- ◇ Did contract programming work for Prof. Allen Hanson, also of the Computer Vision Research Lab, in C and Tcl/Tk to finish up the Korean project from 1/2006 through 8/2006.
- ◇ Provided sub-contracted programming work for Objectxx (Stuart G. Mentzer) in Tcl/Tk from 12/2005 through 5/2006.

**System Programmer** 9/1980–11/2005, Computer Vision Research Lab, Computer Science Department, University Of Massachusetts, Amherst, MA

Assisted professors and graduate/undergraduate students with computer programs and software questions. Collaborated on implementation of old LISPF3 based Vision System on VAX-11/780 contributed to getting GRASPER compiled and running under CLisp. Worked on implementation of LLVS (Low Level Vision System). Responsible for system administration in UNIX and Linux environments and computer programming in C, C++, Tcl/Tk, Lisp and original Lisp Compiler for CLisp.

- ◇ Translated Dr. Howard Schultz's Terrest System from FORTRAN to C, utilizing Posix threading to make effective use of SMP processing.
- ◇ Created a cross-platform GUI front end for the Camera Calibration system in Tcl/Tk.
- ◇ Created a GUI front-end for the Terrest System in Tcl/Tk. This included generating shell scripts to run the Terrest System as a batch job.

*Education and Training*

- **Undergraduate Coursework in Computer Science**  
University of Massachusetts, Amherst, MA
  - ◇ Programming and System Modules
  - ◇ Data Structures
  - ◇ Computer Systems (O/S design)
  - ◇ Translator Design (Compilers)
- **Professional Development**
  - ◇ Show-Plane and Friends User's Manual
  - ◇ Using LLVS under VMS
  - ◇ Universal LLVS Plane File Format
  - ◇ ISR2 User's Guide
  - ◇ Home Librarian Reference Manual
  - ◇ Role Playing Database Reference Manual V1.1
  - ◇ Role Playing Database Reference Manual V2.0
  - ◇ Role Playing Database Reference Manual V2.1
  - ◇ Space Explorers

*References*

**Professor Allen Hanson** Department of Computer Science  
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