

Joel E. Denny

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School of Computing
McAdams Hall
Clemson University
Clemson, SC 29634

research at joeldenny dot org
<http://joeldenny.org>

Research Interests

Parser Technology, Programming Languages, Software Engineering, Software Design and Specification, Web Technology

Education

- M.S. in Computer Science, Clemson University, Clemson, SC. Advisor: Brian A. Malloy. August 2003.
- B.S. in Physics, Clemson University, Clemson, SC. Advisor: Bradley S. Meyer. December 2000.

Publications

- IELR(1): Practical LR(1) Parser Tables for Non-LR(1) Grammars with Conflict Resolution, Joel E. Denny and Brian A. Malloy. To appear in the Proceedings of the 23rd Annual ACM Symposium on Applied Computing (SAC 2008), Fortaleza, Ceara, Brazil, March 16-20, 2008.

Experience

- GNU Bison (<http://www.gnu.org/software/bison/>) is a general-purpose parser generator licensed under the GNU GPL. I have actively contributed new features, documentation, fixes, and mailing-list-based user support to Bison since July 2005. I was granted write access to the Bison CVS repository in January 2006.
- Intermediate Systems Administrator (Graduate Assistant), School of Computing, Clemson University. Experience with Solaris 9 and 10, CentOS 4, and Mac OS X 10.3-10.5. I used Solaris custom JumpStart and managed Solaris installation images. Experience with NetApp filers, Legato NetWorker, Avocent serial console switches, GRUB, HP and Lexmark printer maintenance, CUPS, MediaWiki, Open WebMail, Sendmail, Apache web server, extensive Perl programming and shell scripting, DNS/BIND, and NIS. January 2007 to present.
- Graduate Teaching Assistant, Department of Computer Science, Clemson University. Cp Sc 231, Introduction to Computer Organization, is a sophomore course in machine architecture with a focus on SPARC assembly. I revised and sometimes wrote weekly lab assignments. I also taught labs and graded labs and lecture assignments for approximately 20 students. August 2006 - December 2006.

- Graduate Research Assistant, TECNET (Test and Evaluation Community Network) funded by the DoD. I designed and implemented web software applications for transforming user data into various SVG-based visualizations including some described by the IDEF (<http://www.idef.com>) and OV (C4ISR Architecture Framework, Version 2.0) specifications. I also maintained existing in-house database systems and web software applications. May 2003 - August 2006.
- Webnucleo (<http://webnucleo.org/>) is the nuclear astrophysics group at Clemson University. I served as their original website architect and software engineering consultant. Most notably, I designed and implemented the initial common architecture and interface for their web-based astrophysics tools. I also designed and implemented their Galactic Chemical Evolution sub-website including all astrophysics computational code. May 1999 - June 2006.
- SHP (Simplified Hypertext Preprocessor) is a server-side web page template engine with a generalized method for processing multiple programming languages embedded inside hypertext markup. I am the sole author. I used it extensively in my work with TECNET, and it is the keystone of the Webnucleo website architecture. SHP is licensed under the GNU GPL and is available for download at <http://joeldenny.org/>.
- Graduate Teaching Assistant, Department of Computer Science, Clemson University. Cp Sc 215, Tools and Techniques for Software Development, is a sophomore course in C and UNIX software development. I helped to revise and sometimes write weekly lab assignments. I also taught labs and graded labs and lecture assignments for approximately 40 students. August 2001 - December 2001.

Awards and Honors

- Upsilon Pi Epsilon, April 2003.
- Sigma Pi Sigma, April 2000.

References

- Brian A. Malloy, Associate Professor
School of Computing
Clemson University, Clemson, SC 29634
864-656-0808
malloy at cs dot clemson dot edu
- Harold C. Grossman, Associate Professor
School of Computing
Clemson University, Clemson, SC 29634
864-656-5863
grossman at cs dot clemson dot edu
- Bradley S. Meyer, Professor
Department of Physics and Astronomy
Clemson University, Clemson, SC 29634
864-656-5320
mbradle at clemson dot edu