

Curriculum Vitae

Michael W. Olson

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The primary means of contacting me is via email.

1 Objective

Full-time position in software engineering.

2 Personal information

Software maintainer, computer programmer, and developer, Free Software¹ enthusiast.

3 Interests

I am especially interested in the following topics.

- Lisp (nearly anything)
- Text markup (XHTML, L^AT_EX, XML, Texinfo)
- Facilitating installation of software by means of packages or Makefiles
- Automation in system administration
- Protocols: drafting and implementation
- Version control systems

4 Professional experience

4.1 Ticketmaster Entertainment, LLC - Associate Software Engineer

Location

West Hollywood, California

¹<http://www.gnu.org/philosophy/free-sw.html>

URL

<http://ticketmaster.com/>

Duration

Mar. 2008 - present

4.2 HCoop, Inc. - Sysadmin

URL

<http://hcoop.net/>

Duration

Oct. 2006 - Mar. 2009

Both planned and set up technical infrastructure and kept it running on a day to day basis. This was an unpaid volunteer position.

- Added new members who have been approved and have paid
- Set up daemon configuration on new machines
- Processed support requests
- Periodically updated Debian packages
- Advised the board as to policy matters
- Protected and respected the privacy of HCoop² members

Primary

I was listed as the primary contact for the following services.

- Apache
- Courier IMAP/POP
- Cron
- General Debian issues

²<http://hcoop.net/>

- Exim
- Mailman
- MoinMoin
- PHP
- SquirrelMail

Secondary

I was listed as the secondary contact for the following services.

- LDAP
- MySQL
- ProFTPD

4.3 RCAC - Assistant Sysadmin and General Linux/UNIX Technician

Location

West Lafayette, Indiana

Duration

Mar. 2006 - Dec. 2007

Worked with various RCAC³ (the Rosen Center for Advanced Computing at Purdue University) staff members to help carry out a variety of systems tasks.

- Installed Debian GNU/Linux and Red Hat Enterprise Linux on various kinds of machines using various methods (bootstrap, CD, USB drive, PXE)
- Made a database of information about the machines in our machine room
- Worked with `cfengine`, the software used to propagate configuration settings across many machines
- Performed diagnostics on machines that are unresponsive
- Designed an incident report database, with Python-based CLI interface for adding new incidents and a PostgreSQL backend

³<http://www.rcac.purdue.edu/>

4.4 Purdue University - Teaching Assistant

Location

West Lafayette, Indiana

Duration

Jan. 2006 - Apr. 2006

Assisted in the grading and lab proctoring for the C Programming for Engineers course that is offered at Purdue.

- Supervised labs
- Provided assistance in labs
- Graded homework and lab submissions
- Maintained a lab-specific website

4.5 Bethel College - Database programmer

Location

Mishawaka, Indiana

Duration

2003 - 2004

Crafted reports for Admissions Office, Registrar, Nurse, and Student Services. This involved using the INFORMIX database software.

- Fulfilled Solomon Report requests as mandated by the Federal Government
- Verified the integrity and consistency of the central database
- Prepared AdmProfs⁴, which is a Perl program that can generate XHTML 1.0 compliant reports for a variety of incoming student test scores
- Documented the process of comparing address data from an external source with database records by using several UNIX command line tools

⁴<http://mwolson.org/projects/AdmProfs.html>

4.6 Bethel College - Admissions Office intern

Location

Mishawaka, Indiana

Duration

2002 - 2003

Involved myself with various functions of the Admissions Office.

- Answered phones
- Entered and corrected prospective student data in the central database
- Provided unofficial technical support to the Admissions staff
- Mailed pamphlets and letters

5 Education

5.1 Purdue University - Undergraduate student

Duration

Aug. 2004 - Dec. 2007

GPA

3.14

Degree

Obtained B.S. in Computer Science and B.S. in Mathematics

5.2 Bethel College - Undergraduate student

Duration

Aug. 2002 - May 2004

Major

Computer Science / Mathematics

6 Research experience

6.1 Purdue University - Undergraduate research

Duration

Fall 2007

Supervisor

Suresh Jagannathan

Updated the Kali branch of Scheme 48⁵ with the latest development changes and implement additional functionality, as specified by my supervisor.

- Migrated changes from Subversion to Mercurial, keeping track of merged changesets and authorship data.
- Used placeholder variables to cause a command to wait until a particular state in another thread has been reached.
- Changed code to use a more up-to-date conditions library.
- Worked out several dependency issues when building the Scheme 48 image.

7 Affiliations

- Associate member of the Free Software Foundation⁶
- Member and administrator of the Internet Hosting Co-Operative⁷

8 Hobby projects

I work on several hobby projects that are associated with the Free Software movement⁸. While this work is often its own reward, I believe that I gain valuable and marketable skills from it.

- Maintainer of Emacs Muse⁹, a text publishing mode for Emacs which aims for inclusion in Emacs
- Release manager and Debian packager for ERC¹⁰, an IRC client that runs in Emacs

⁵<http://s48.org/>

⁶<http://member.fsf.org/>

⁷<http://hcoop.net>

⁸<http://www.fsf.org>

⁹<http://mwolson.org/projects/EmacsMuse.html>

¹⁰<http://www.emacswiki.org/cgi-bin/wiki/ERC>

- Maintainer of EMMS¹¹, a music player for Emacs
- Contributor to (and former maintainer of) Planner Mode¹², a TODO list manager and life organizer for Emacs
- Contributor to DVC¹³, an interface for using distributed version control systems with Emacs.
- Contributor to ErBot¹⁴, an IRC bot that runs in Emacs

An enumeration of some of these skills follows, by project.

8.1 Emacs Muse

- In-place markup of text to other formats
- Wrote entire manual in TexInfo format
- Context-sensitive escaping of special characters
- Pre and post-parsing data structures for user configuration
- Build simple and effective interfaces for customization of software options
- Resolution of file links across “project” boundaries
- Efficient and effective use of regular expressions
- Interoperability with external packages that provide spell-checking and other features
- Nest several types of lists according to level of indentation

8.2 ERC

- Refactor code around an abstract object
- Use the correct character coding system for output depending on context
- Merge functionality from a similar project
- Enhance product compatibility and interoperability for several different clients

¹¹<http://www.gnu.org/software/emms/>

¹²<http://www.emacswiki.org/cgi-bin/wiki/PlannerMode>

¹³<http://download.gna.org/dvc>

¹⁴<http://www.emacswiki.org/cgi-bin/wiki/ErBot>

- Keep track of copyright assignments and permissible use of code from contributors
- Re-use chat windows when the client reconnects to the server
- Research ways of aligning timestamps on the right of the screen

8.3 EMMS

Add support¹⁵ for MusicPD¹⁶ in EMMS, which involves the following.

- Sync contents of EMMS playlist to MusicPD, and vice versa
- Write a timer function to detect song change and change of playlist
- Retrieve track metadata
- Implement a process sentinel function
- Adapt existing transaction queue code so that it sends input only when the server process is ready for it, and then contribute my changes back upstream
- Implement a send-command interface using closures and callbacks
- Cause the description for each track in the current playlist to be updated in an asynchronous manner

8.4 Planner

- Fix bugs by making atomic changes
- Process user requests and schedule implementation
- Implement a Makefile-based compilation system
- Hone package-related metadata
- Successfully synthesize contributions from multiple contributors
- Keep track of file authorship

¹⁵<http://mwolson.org/darcs/emms2/emms-player-mpd.el>

¹⁶<http://musicpd.org>

8.5 ErBot

- Fix stack overflow exploits
- Implement retrieval of acronym definitions
- Fix arbitrary execution of code exploits
- Analyze binary tree data for safe evaluation
- Prepare Makefiles that rely on an external (and convenient) compilation system

9 Core competencies

- Programming
- OS installation
- Automation in system configuration
- Documentation

10 Technical proficiencies

Platforms

7 years of experience with GNU/Linux (Red Hat Enterprise Linux 3 and 4, Debian, Ubuntu), 4 years of experience with UNIX (HP-UX, Solaris), Windows 95/98/2000/XP

Languages

C/C++, Emacs Lisp, Java, ANSI Common Lisp, Scheme, ML97, SQL, Perl, Python, Bash shell script, DOS batch script

Services

Apache (1.x and 2.x), Courier, Cron, Exim (3 and 4), MySQL, PostgreSQL, OpenLDAP, rsync, shorewall, Squirrelmail, SSH

Other

Git, Subversion, CVS, Bazaar, Mercurial, Darcs, Makefiles, Debian packaging, cfengine

11 Achievements and involvements

11.1 Community service

- Completed 20 hours of community service in the city of Elkhart, Indiana

- Completed 20 hours of community service around Mishawaka, Indiana

11.2 Honors

- Chess Club champion 1999–2001 at Penn High School
- Inclusion in the National Dean's List 2002–2003
- Inclusion in the 2002 United States Achievement Academy yearbook
- 3rd place - high school individual division - 2002 Indiana Student Software Awards Competition (ISSAC)
- 2nd place team in the David Ricardo division of the 2002 Indiana Economics Challenge
- Graduated with Academic Honors Diploma from high school

11.3 Activities

- Students Against Destructive Decisions club for 2 semesters
- Bethel College Student Senate for 2 semesters
- Founded the Bethel College Linux Users Group and was involved for 2 semesters
- Webmaster of the Purdue Linux Users Group¹⁷ in 2004–2005, 2005–2006, 2006–2007
 - Built LDAP and NFS infrastructure
 - Provided documentation for use by future webmasters
- Vice President of the Purdue Linux Users Group in 2005–2006, 2006–2007
- Acting President of the Purdue Linux Users Group from Jan. 2007 through Apr. 2007
- Founding member of the Ubuntu-elisp group on <http://launchpad.net>, which helps to maintain Emacs-based packages for Ubuntu Linux
 - Prepared Ubuntu packages for Emacs 22
 - Packaged new version of AucTeX for Ubuntu

¹⁷<http://purduelug.org/>

- Sent out patches for around 7 different packages in order to support a new release of Emacs
- Took over maintenance of the Debian and Ubuntu packages for CEDET and JDEE.