

# Joshua Michael Sled

South Burlington, VT - <http://asynchronous.org/jsled> - jsled {at} asynchronous {dot} org

## Objective

To write world-class software, to better understand the process of constructing software and contribute to advancements in the state of the art thereof.

## Education

- Bachelors of Science, Electrical Engineering and Computer Science, UC Berkeley, May 1999
  - Emphasis on Artificial Intelligence; graduate-level course work in Natural Language Processing.
  - Member of the eXperimental Computing Facility (XCF), an undergraduate computer-science organization.

## Work Experience

### Spoke Software - San Mateo, CA

#### Sep 2002 - present: Senior Software Engineer

<http://spoke.com/> - Significant participant in the development of a system for the discovery and identification of persons in their capacity at companies and other organizations. The Spoke system allows members to index their email to identify persons, then combined with persons known to other members in order to create a detailed map of person-to-person relations, and the affiliation of those persons with companies. The customer is a sales professional looking for information about a company or industry they are targeting. I have worked remotely since the Fall of 2003.

- Addition of new functionality to original prototype system with outsourced development team.
- Setup internal tools (cvs, bugzilla, twiki, irc, nagios) for development.
- Participant in the "1.0" system spec, design and build.
- Lead designer for apps/platform API; co-designer of platform system data-model and infrastructure.
- Primary implementer of many business-logic and data-services.
- Primary designer and implementer of a unique person-search subsystem.
- Author of "DeDup", a unique entity-resolution system.
  - DeDup is a backend, data-focused, application-specific entity-resolution

process, leveraging system-unique data to determine person-identity-similarity between records and collapsing sufficiently-similar records in the data-base.

- An extensive testing framework was developed to quantitatively measure changes in an otherwise "fuzzy" process against a known set of data.
- Participated in the evaluation of third-party outsourced-software development firms; served as technical lead on multiple development efforts.
- Technology-selection and setup of monitoring infrastructure.
- In-line performance monitoring and optimization.
- Authored administration applications for Operations and Services.

## **GnuCash**

### **January 2001 - present: Developer**

<http://gnucash.org/> - Active contributor to the popular open-source personal financial management program GnuCash, adding user-interface, program-logic and XML-backend support for *Scheduled (Recurring) Transactions*. This consists of two application dialogs, two "wizards" for data entry, and the creation of two novel GTK widgets for editing recurrence frequency and space-efficiently displaying a marked calendar of data.

## **Indivos Corporation - Oakland, CA**

### **May 1999 - August 2002: Senior Software Engineer**

<http://paybytouch.com/> - Instrumental in developing all aspects of a retail point-of-sale biometric technology application for this startup company. Participated in multi-platform server and embedded software development, external-facing business development, second-system architecture and development, and system administration as needed.

- Designed and developed application-level database encryption layer.
- Developed server log-analysis software comprising 14000 lines of Perl.
- Distilled relevant ANSI/ISO specifications into hard/soft requirements for the system.
- Developed a custom device driver and USB 1.1 stack for the company's embedded hardware (5000 lines of C).
- Developed and brought-up a custom StrongArm-based embedded hardware design (4000 lines of C at present).
- Created in-house webapp to manage the biometric hardware/software test results; combination of C, Java, Perl and PHP with a MySQL database and flat-text files.
- Implemented application-level protocol stacks (C, C++) to communicate with point-of-sale terminals.
- Represented Engineering in initial meetings with various large retailers.
- Leadership in coordinating retailers, processors, VARs and internal staff in fielding two pilots.

# Neural Theory of Language Project - International Computer Science Institute - Berkeley, CA

**June 1998 - May 1999: Undergraduate Programming Assistant**

<http://www.icsi.berkeley.edu/NTL/> - Lead programmer in converting C and Java code resultant from multiple theses and research into a single Java framework, while helping to extend functionality. Developed Swing-based user-interfaces for the various re-written programs; developed Swing components to edit system data structures. The research project focused on machine learning of verbs, using Bayesian and Petri Network models.

## Workstation & Microcomputer Facilities Group, Information Systems and Technology, University of California at Berkeley

**August 1997 - May 1999: System Administrator, Programmer**

W&MF operates general-use undergraduate computer labs at UCB. Co-wrote and administered *Better Off Sched*, a CGI-based schedule-managing and shift substitution system; BOS remains heavily relied upon by the W&MF student staff and supervisors. Primary system administrator for a SunOS 2.6 machine used by approximately 200 student employees and professional staff. This machine was the primary e-mail and web server for coordinating day-to-day operations between employees of the W&MF, as well as the machine through which the BOS system operates.

## Skills/Technologies

AJAX, AWT, Agile Apache, BSD Sockets, C++, C, CGI, CSS, CVS, Elisp, FreeBSD, GDK, GTK, Gnome, HTML, HTTP, Java, Javascript, LaTeX, Linux, Lisp, Microsoft Windows [NT/2000], OOP, PHP, PalmOS, Perl, Python, RDF, REST, RSS, RTOS, SOAP, SQL, Sockets, Solaris, Subversion, Swing, TCL, TCP/IP, Threads, Unit Testing, Windows, Windows Services, XML, XP, XPath, XSL, XSLT

## References

References and work samples available upon request.

---

<http://asynchronous.org/jsled/resume> - updated: Sep 2005, [jsled](#)