

# David A. Krauth

dakrauth@gmail.com · 207.274.0401 · <https://dakrauth.com/cv/> · <https://github.com/dakrauth>

## Summary

Software developer specializing in full stack web development using Python, Django, and Javascript.

## Skills

Languages	Python, Javascript, C/C++, SQL
Environments	Mac OS X, Linux (Ubuntu/Debian, RHEL/CentOS), AWS
Web Servers	Apache, nginx, WSGI
Frameworks	Django, jQuery, Backbone, Bootstrap
Data	MySQL, PostgreSQL, Memcached, Redis
Tools	git, Docker, Mercurial, Photoshop
Mark-up	HTML(5), CSS(3), SASS, XML, JSON, reStructured Text, Markdown

## Work Experience

### Artemis Consulting (Library of Congress)

Washington, DC

Lead Python Developer · 11/2017 - Present

Design and implement internal tools for digital data ingest

### Open Therapeutics, LLC

Washington, DC / Cincinnati, OH

Lead Software Developer and Director of Software Development · 6/2016 - 6/2017

Architect and principal contributor to the Therapoid platform.

- Designed tools, services, and interfaces for open source, collaborative bio-technologists and life scientists.
- Incorporated various 3rd party API's for authentication, annotation, and publishing services.

### Self Employed

Maastricht, NL

Web Development Consultant · 3/2014 - 6/2016

Development of major conference web sites and portals.

- Developed web portals for the Univeristy of Maastricht departmental conferences, handling registration, enrollment, and scheduling services.
- Authored the Pension Communication web portal for the U. of Maastricht Department of Finance.

### Real Digital Media

Portland, ME / Seminole, FL

Sr. Software Engineer · 5/2011 - 3/2014

Front-end developer and designer for cutting edge enterprise SaaS platform for managing large scale digital signage delivery networks.

### CashStar, Inc

Portland, ME

Sr. Software Engineer · 2/2009 - 5/2011

Employee number 7 during early start-up phase, helped to grow CashStar from 3 to 90+ merchant accounts and 40+ employees.

- Developed skin-able eCommerce web sites for digital gift cards for top industry leading brands, e.g. <https://homedepot.cashstar.com/> and <https://williams-sonoma.cashstar.com/> (for extensive list see <http://www.cashstar.com/egift-center/>).
- Wrote internal customer service applications with integrations for proprietary, predictive fraud and risk analysis services to minimize credit card fraud.
- Designed extensive, patent-pending promotional and incentive packages for seasonal marketing campaigns.
- Developed analytical and reporting mash-up web applications for client dashboard services.

### Somatic Digital

Manchester, NH

Lead Software Architect and Developer · 11/2004 - 1/2009

Co-founder and Vice President of a technology start-up, responsible for all developmental aspects of the Touch User Interface (TUI) technology, which naturalizes human/computer interaction by providing the conduit through which multimedia content is accessed through non-traditional means, such as paper.

- Managed and implemented all technology R&D;, prototypes, and IT infrastructure to position the company to successfully raise over \$1M in angel and venture funding.
- Wrote the primary desktop client applications using Python and the wxPython GUI framework, deployed to both Mac OS X and Windows platforms.
- Designed and implemented the somaticdigital.com and etouchbook.com websites using the Django web framework and the jQuery javascript library.
- Authored the TUI XML-based, content-mapping schema used to connect areas of the pages of the TUI-enabled book to digital content, websites, applications, and proprietary subscription services.
- Inventor / co-inventor named on 5 patents.
- Contributed to the success of Somatic Digital's strategic partnerships with NASA and the National Federation of the Blind.
- Authored the web accessible site <http://NFBSHareBraille.org/>, allowing blind users to exchange braille publications through the USPS Free Matter for the Blind.
- Crafted the standardized TUI Icon library for entry into the INCITS V36 technology standards (<http://v36.incits.org>), as well as gain Somatic Digital's entry onto the committee.

## **OASIS**

Billerica, MA

Sr. Web Developer · 10/2006 - 8/2007

Technical Services member

- Design and implementation of the OASIS Library, a document management system for the OASIS standards workflow process, featuring expensive metadata capabilities based upon Dublin Core (DCMI). Developed using Django, MySQL, Apache 2.2 and Debian Linux.
- Maintenance and enhancement of the Zope-based KAVI platform.

## **Microsoft**

Redmond, WA

Software Development Engineer / Test · 9/2004 - 3/2005

Visual Studio 2005 Team Suites member

- Architected the core testing framework for the Team Suites integration with Visual Studio 2005, MS Excel and MS Project using C#.NET 2.0
- Supervised the daily outsourcing of test case development to Microsoft's contracting agents in China
- Enhanced the daily test automation environment using Python 2.3

Software Development Engineer / Test · 9/2003 - 9/2004

Windows 2003 Server team member for Microsoft UDDI v3

- Implemented an XML-driven test harness using C#.NET to automate web browser UI and Windows Server 2K3 MMC test cases
- Wrote detailed test cases for the UDDI SOAP interface using XML and XSLT
- Automated the testing environment using Python 2.3

## **Honeywell**

Clearwater, FL

Software Engineer · 1/2003 - 6/2003

Team member for the Ballistic Missile Range Safety Technology system (staffed through Manpower)

- Implemented a quadratic digital smoothing filter for radar data ingest
- Created an XML-driven, automated build system in Python 2.2 and C++, using MFC, SMTP, PVCS, MS Word integration

Lead Software Test Engineer · 7/2002 - 1/2003

Team lead responsible for implementing white-box testing for a multithreaded, cross-platform, software library written in C++, used as the foundation for the BMRST system

- Designed extensive test code scenarios for a string class with regular expression interfaces; TCP/IP socket and listener interfaces; templated containers (deques, maps, vectors); threading devices (semaphores, mutex, critical sections)
- Wrote a C++ language parser in Python to extract class and method declarations for generating skeleton test code.

## **Teltronics**

Sarasota, FL

Senior Software Engineer · 6/2000 - 7/2002

Lead developer responsible for the design and development of the Site Event Buffer (SEBea), a remote hardware device used to monitor legacy telecommunication devices via data collection, alarm monitoring and event reporting.

- Designed with UML and implemented with C++ a customized RTOS and application layer embedded in the Motorola PowerQUICC 860T
- Refactored and extended the Python 1.5.2 interpreter as a thread-safe, embedded code base within the RTOS application layer
- Authored a command line shell for remote telnet or serial interface

- Engineered the event detection process by which input is read, analyzed, and converted from a byte stream to meaningful records of information to be cached into a tagged data format for remote retrieval
- Contributed to the SEBEa MFC emulator application

### **IBM**

Tampa, FL

Software Engineer · 3/1999 - 6/2000

Developed dial-up and broadband connectivity software for Windows and Macintosh

- Contributed to the development the dialer application, specializing in Windows dial-up networking with RAS, TCP/IP, PPP, VPN, and PPTP

### **Andersen Consulting**

St. Petersburg, FL

Software Consultant · 8/1997 - 3/1999

Lead developer for the developmental tools team for a full lifecycle, large scale, client/server application package

- Wrote stand-alone MFC applications and web-based services for the optimization and enhancement of the development and deployment environments

### **Robbins Engineering**

Tampa, FL

Software Developer and Trainer · 11/1996 - 8/1997

Development, deployment, and training of multiple engineering software packages

- Programmed designer roof engineering applications

### **Ridgway Roof Truss**

Gainesville, FL

Programmer/Engineering Systems Analyst · 2/1995 - 10/1996

AutoCAD and IT specialist for roof truss engineering firm.

- Developed custom C++ and AutoLisp tools for analysis of engineered roof systems

### **Education**

Daytona Beach Community College, Daytona Beach, FL, A. A.

University Of Florida, Gainesville, FL