Ed Summers

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I am a software developer with two decades of experience bridging the worlds of libraries and archives with the World Wide Web. I have worked in academia, startups, corporations and the government. I work best in agile, highly collaborative teams, that want to help make the world a better place.

Skills

- web technology, APIs, REST, linked data, web archiving
- digital preservation, data management, knowledge management, search
- opensource, standards development, community building
- automated testing, agile software development, rapid prototyping
- Python, JavaScript, Go, Ruby, Perl, PHP, Java, C, Scheme
- Ubuntu, Red Hat, Amazon Web Services

Work History

Lead Software Developer
Maryland Institute for Technology in the Humanities
University of Maryland
08/2014 - Present

- digital humanities research and development
- linked data publishing
- automated testing
- requirements gathering / project management
- digital archives

Information Technology Specialist
Repository Development Center
Library of Congress, Washington, DC
03/2006 - 08/2014

- digital preservation and repository software design and development
- lead software developer on the [National Digital Newspaper Project] ndnp
- created a web based quality assurance tool for handling high volume image digitization projects
- social media archiving (Twitter)

- designed and implemented the [Library of Congress Linked Data Service] id
- contributing member to the Semantic Web Deployment Group, Library Linked Data Incubator Group, and eGov Interest Group at the W3C

Consultant
George Washington University, Washington, DC
10/2013 - present

- Django Web Development
- Voyager ILS integration (Oracle)
- Serial Solutions Summon API integration

Consultant
Nelson Institute for Environmental Studies
University of Wisconsin, Madison, WI
09/2013 - present

- web harvesting
- data managment

Consultant
Hypothes.is
San Fransisco, CA
01/2013 - 10/2013

- CoffeeScript and Python development
- development of the opensource Annotator annotator and [Annotator Store] annotator-store projects
- design and implementation of [cross format annotation support] cross-format-annotation
- functional and unit testing support using Selenium, PyTest, Travis-CI and SauceLabs

Consultant
GlueJar
11/2011 - 04/2012

- Django software development UnglueIt unglueit
- Amazon AWS Deployment (EC2, RDS, Route 53) for dev, test and production
- Google Books integration
- Google, Facebook, Twitter social media integration
- automated testing and continuous integration (Jenkins)

Consultant
Canary Project
Yale School of Medicine, New Haven, CT
07/2005 - 12/2005

- Python object oriented design

- automated testing
- implemented a reporting framework
- Quixote, Pylucene, MySQL, Red Hat administration

Senior Software Engineer
Follett Corporation, McHenry IL
05/2005 - 03/2006

- building and supporting a distributed knowledge management application
- requirements gathering and project planning
- web service design and implementation
- ONIX metadata harvesting and ingest
- Java performance tuning
- automated testing
- database administration
- Linux/Windows systems administration

Consultant
Performix, Chicago IL
02/2004 - 04/2005

- object oriented design
- refactored large Perl codebase
- Perl, Apache, mod_perl, DB2

Consultant
Queens Borough Public Library, New York NY
06/2004 - 05/2005

- character encoding conversion
- controlled vocabulary mining
- Perl data processing training

Consultant
Notre Dame University, South Bend IN 06/2004 - 12/2004

- training in object oriented programming and unit testing
- high volume metadata harvesting
- guidance and implementation search technologies
- ported Java Commonn Query Language parser to Perl

Applications Developer
Follett Library Resources, McHenry IL
07/2002 - 05/2004

- PHP/Perl development in a Unix/Oracle environment
- determined project requirements, created task lists and schedules
- designed and developed library collection analysis application
- unit and application level automated testing
- Oracle/Apache stress testing and performance tuning
- XML processing

- distributed application design using SOAP/XMLRPC

Senior Software Engineer
CheetahMail, New York NY
02/2000 - 07/2002

- team lead in a group of 8 programmers
- developed data processing infrastructure for Fortune 500 clients
- designed/developed real time reporting system
- creation and maintainance of web service API
- in depth knowledge of SMTP and HTTP protocols
- web services development
- technical representative for partners and sales
- networking and systems administration as required

Electronic Resources Librarian
Old Dominion University, Norfolk, VA
04/1998 - 02/2000

- SGML data processing for electronic texts for 39 universities in Virginia.
- created current awareness system to alert students/faculty to new items in their field of interest.
- created XML publishing system for archival finding aids.
- developed serials database for locating licensed fulltext.
- III/OCLC metadata management integration

Visiting Assistant Professor University of Illinois, Champaign-Urbana, IL
08/1996 - 03/1998

- web/database development (ASP/SQLServer)
- collection development and cataloging in Sociology and Political Science
- preservation of 19th century criminology pamphlet collection
- managed reference services in the Social Science Library

Selected Projects

I like to learn and keep my skills sharp by working on or participating in opensource projects. This is a shortlist of projects that I am proud to have started or been involved with:

- wikistream wikistream: visualize realtime edits to all major language Wikipedias
- anon anon: post anonymous Wikipedia edits from particular IP ranges to Twitter e.g. congress-edits congress-edits
- pymarc pymarc: a python library for liberating library data locked up in the MARC format
- shortimer shortimer: a jobs board that uses Google Freebase
- linkypedia linkypedia: view how websites are used on Wikipedia

- fondz fondz: generate an archival description for describing born digital content
- ici ici: view Wikipedia articles for your current location on a map
- microdata microdata: a python library for parsing HTML 5 microdata
- twarc twarc: a command line utility for archiving Twitter
- rdflib rdflib: a Python library for processing RDF

Selected Publications

- Ferguson and the death of Michael Brown on Twitter: #BlackLivesMatter, #TCOT, and the evolution of collective identities. Ethnic and Racial Studies, 40(10).
- #sayhername: a case study of intersectional social media activism. Ethnic and Racial Studies, 40(10).
- Bots, Seeds and People: Web Archives as Infrastructure. Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing, CSCW 17.
- [Automating Transparency] automating. The Source. April, 2015.
- [MJ no more: Using Concurrent Wikipedia Edit Spikes with Social Network Plausibility Checks for Breaking News Detection] mj. 2013.
- [Linking Things on the Web: A Pragmatic Examination of Linked Data] linking-things, 2013.
- [Key Choices in the Design of Simple Knowledge Organization System (SKOS)] key-choices, 2013.
- [Library Linked Data Final Report] lld, W3C Incubator Group Report, October 2011.
- [SKOS Simple Knowledge Organization System Primer] skos, W3C Working Group Note, August 18th, 2008. http://www.w3.org/TR/skos-primer/
- [LCSH, SKOS and Linked Data] lcsh-skos-ld, Proceedings of the International Conference on DublinCore and Metadata Applications, 2008.
- [Following Your Nose to the Web of Data] nose, Information Standards Quarterly, 2008
- [Building OAI-PMH Harvesters With Net::OAI::Harvester] harvesters, Ariadne, no. 38, Jan 2004.
- Cyril: Expanding the Horizons of MARC21, Library Hi Tech, v. 22, no. 1, 2004.
- A Consortial Approach to Cooperative Cataloging and Authority Control: The Virtual Library of Virginia Experience, Resource Sharing and Information Networks, v. 16, no. 1, 2003, p. 33-53.
- [Paying Homage to Perl (PHP)] homage, The Perl Review, January, 2003.
- MARC it your way: MARC.pm, Information Technology and Libraries, March, 2002.
- Comprehensive Access to Periodicals: A Database Solution, Library Collections Acquisitions and Technical Services, v. 24, no. 2, 2000, p. 33-44.
- Show Me the Metadata, Against the Grain, v.11, no.1, 1998.

- Gateways to Social Work/Welfare on the Net, C&RL News, v.59, no. 3, 1998, p.163-167.

Education

- MLS, School of Communications, Information and Library Science, Rutgers University, 1995-1996
- BA English and American Literature, Rutgers University, 1987-1991.

Awards

- 2015 University of Maryland Scholarship and Research Award
- 2015 Frederick G. Kilgour Award for Research in Library and Information Technology
- 2015 Shorty Award