

# 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](#)

- 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](#)
- 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 management

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

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

Consultant  
GlueJar  
11/2011 - 04/2012

- Django software development [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](#): visualize realtime edits to all major language Wikipedias
- [anon](#): post anonymous Wikipedia edits from particular IP ranges to Twitter e.g. [congress-edits](#)
- [pymarc](#): a python library for liberating library data locked up in the MARC format
- [shortimer](#): a jobs board that uses Google Freebase
- [linkypedia](#): view how websites are used on Wikipedia
- [fondz](#): generate an archival description for describing born digital content
- [ici](#): view Wikipedia articles for your current location on a map
- [microdata](#): a python library for parsing HTML 5 microdata
- [twarc](#): a command line utility for archiving Twitter
- [rdflib](#): a Python library for processing RDF

## Selected Publications

- [MJ no more: Using Concurrent Wikipedia Edit Spikes with Social Network Plausibility Checks for Breaking News Detection](#). 2013.
- [Linking Things on the Web: A Pragmatic Examination of Linked Data](#), 2013.
- [Key Choices in the Design of Simple Knowledge Organization System \(SKOS\)](#), 2013.
- [Library Linked Data Final Report](#), W3C Incubator Group Report, October 2011.
- [SKOS Simple Knowledge Organization System Primer](#), W3C Working Group Note, August 18th, 2008. <http://www.w3.org/TR/skos-primer/>
- [LCSH, SKOS and Linked Data](#), Proceedings of the International Conference on DublinCore and Metadata Applications, 2008.
- [Following Your Nose to the Web of Data](#), Information Standards Quarterly, 2008
- [Building OAI-PMH Harvesters With Net::OAI::Harvester](#), 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 \(PHP\)](#), 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