Richard Higgins, Ph.D., M.I.S.

rshiggins.net | libraries.indiana.edu/richard-higgins

EMPLOYMENT

Software Engineer, Library Applications (2018- present)
Library Technologies, Indiana University Libraries

- Develop and analyze open-source software solutions supporting the operations of IU Libraries.
- Troubleshoot and resolve issues with database-driven, dynamic web applications, including software written in PHP, JavaScript, NodeJS, Ruby on Rails, Java, Python, and XSLT.
- Work closely with the IU Libraries' Discovery and User Experience Department and third-party developers to maintain and improve the Libraries' primary web site.
- Maintain knowledge and innovation in several domains, including open access publishing, digital library and repository management, genAI tools, metadata standards and processes, front-end frameworks, and user experience.
- Certified Scrum Product Owner (CSPO)

Open Access Publishing and Repository Manager (2015-2018)
Scholarly Communication Department, Indiana University Libraries

- Performed maintenance, improvements, and upgrades as the member of Scholarly Communication and Library Technologies teams supporting the IUScholarWorks repository and open scholarship services.
- Provided daily user support and help desk solutions for the IUScholarWorks web applications, including institutional repositories (DSpace, TIND), a digital publishing platform (OJS), and CMS web applications (Drupal).
- Recommended and implemented best practices for mobile-first and accessible design, and systems and metadata solutions for science computing, data management and preservation, digital publication, and long-term access to research materials.
- Instructed faculty and graduate students on the use of software solutions for distributing scholarship, research storage, accessibility, and data management (including the "Scholarly Data Archive" storage system and IU's high-throughput computing resources).
- IU Libraries' Annual Professional Staff Award Winner (2017)

Digital Humanities Support Specialist (GA appointment, 2014-2015)
Cyberinfrastructure for the Digital Humanities, Research Technologies, University
Information Technology Services

Information Commons Consultant (2013- 2014)
Information and Library Science, Luddy School of Informatics, Computing, and
Engineering

Alternate Media Editor (2013)
Adaptive Technology and Accessibility Center, University Information Technology
Services

Visiting Lecturer (2010-2012)
Department of English, Indiana University Bloomington

Lecturer of English (2011-2012)
Franklin College (Indiana)

Teaching Assistant (2008-2011)
Department of English, Indiana University Bloomington

Assistant Sponsoring Editor (2002-2004)
Indiana University Press, Bloomington, IN

Managing Editor (2000-2001)
Victorian Studies journal, Indiana University Bloomington

EDUCATION

Information Science, **M.S.** (2016)
Department of Information and Library Science, Luddy School of Informatics, Computing,
and Engineering. *Full-stack web programming, scripting languages, XML technologies,
digital publishing, HCI/UX design, information architecture.*

English Language and Literature, Ph.D. (2009)
Department of English, Indiana University Bloomington. *Received* James A. Work Award
*for outstanding graduate student in English (2008) and Victorian Studies Dissertation
Fellowship (2007).*

World Literatures, BA (1994), *with distinction.*
Department of Literature, University of California — Santa Cruz.

PROJECT PORTFOLIO

- **ORCID Integration Working Group**
  Using new features in COmanage Registry, an identity management tool
  developed by Internet2's InCommon community, we are creating a single
  point of integration for ORCID research. I developed a prototype of an
  integration that wraps COmanage operations and ORCID authentication in a
  frontend to support and manage research profiles in a secure and sustainable
  way (2025). github.com/IUBLibTech/Orcid-Comanage-Integration

- **Publication: "Leveraging LLMs in Library Publishing: JATS XML
  Encoding with ChatGPT,"** *Journal of Librarianship and Scholarly
  Communication* 13.1 (2025), with Matthew Vaughn.
  doi.org/10.31274/jlsc.18048

- **Presentation:** "A Fresh Take on JATS: Book Reviews as a Simple,
  Immediate, and Accessible Gateway to Full-Text Publishing," with
  Matthew Vaughn. Library Publishing Forum (2023).

- **JATS XML Publishing**
  Local customizations of the OJS JATS Parser Plugin (2021, 2025).
  github.com/IUBLibTech/jatsParser-OJS-plugin

- **Libraries Blogs, WordPress theme**
  Unique implementation of IU's *Rivet Design System* (2022).
  blogs.libraries.indiana.edu

- **Data Curation and Management Proposal** for preserving a social media
  dataset, including metadata schema assessment, compliance with NEH
  guidelines, and enumeration of repository specifications (2014).
  www.rshiggins.net/DataCurationPlan.pdf

TOOLS AND SKILLS

- **Full-stack Development**: PHP, JavaScript, NodeJS, ReactJS, Rails/Ruby, Java,
  MySQL, PostgreSQL, Linux Shell, API development and implementation

- **XML and Metadata Technologies**: DTD/XSD, XSLT, XPath, XQuery, RDF,
  TEI, JATS, Dublin Core, MARC, EAD, MODS, OAI-PMH

- **Collaboration and Project Management:** GitHub, Confluence, JIRA, Slack,
  Agile/SCRUM, Teams

- **Media and Data Presentation**: Gephi, D3.js, Tableau, Omeka, Leaflet, JW
  Player, OpenRefine, Sci2 Tool

- **Text and Data Analysis**: R/RStudio, Python, NLTK, Jena/SPARQL

RECENT SERVICE

- Library Staff Organization Council, Indiana University Libraries (2023-2024)

- Software Carpentries Instructor Training, Volunteer-run, not-for-profit workshops for researchers (2022)

- Libraries Diversity Committee, Indiana University Libraries, subgroup member

  (2020) Harmony School Technology Committee, Bloomington, IN (2019-2020)

- Harmony School High School, Volunteer Substitute Teacher, Bloomington, IN (2018)