

# MATTHEW CRITCHLOW

(Last updated November 30, 2017.)

## BASIC INFO

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## EXPERIENCE

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| 2017      | <b>Lead Application Developer</b> — <i>University of California, San Diego.</i><br>Collaborate directly with the Lead DevOps engineer to introduce several changes to our configuration management, continuous integration and delivery strategies through the use of Ansible, Jenkins, and possibly orchestrated containers. Lead open source community engagement and technical initiatives that are of value to University of California, San Diego with the Samvera, Blacklight, and Fedora projects. Work with entire development team to successfully deliver a new Digital Asset Management System based on Fedora and Samvera.   |
| 2013–2017 | <b>Manager of Development and Web Services</b> — <i>University of California, San Diego.</i><br>In this position I was able to successfully advocate and oversee the team's transition to adopting an open source Library repository framework, then called Hydra. This transition included an entirely new workflow and set of technologies, which I introduced successfully and the entire Library organization realized substantial value from. This included the transition to bi-weekly development iterations (Sprints), requiring comprehensive test coverage for our software applications, implementing a continuous integration workflow and a chatops deployment strategy.                    |
| 2009–2013 | <b>Web Technical Manager</b> — <i>University of California, San Diego.</i><br>Served as manager and technical expert for the Web Services team. Collaborated with a key Library stakeholder to introduce Agile principles for the first time in a Library project. This was done for the creation of the Library mobile website which was very well received. Other projects included a complete overhaul of the Library Public Website, the creation of a new Library Intranet, and several other critical projects such as the San Diego Technology Archive.   |
| 2006–2009 | <b>Programmer/Analyst</b> — <i>University of California, San Diego.</i><br>In this position I wrote a Audio Reserves application that students used to access playlists of content that was required listening for their course. This was a high demand application on campus. The software was written in Java and JSP, but a triplestore was used instead of a traditional relational database. This made the CRUD interactions for the application more complex, but allowed for very robust metadata. I also wrote the initial editing support for the Digital Asset Management System triplestore repository that interacted with Apache Jena to manipulate the RDF graphs for our digital objects. |
| 2004–2006 | <b>Programmer/Analyst</b> — <i>University of California, Irvine.</i><br>I worked in the Registrar's Office software development team. I was responsible for writing software that students used to look up time-sensitive information such as their grades and course schedules. The software was predominately written in Java using the Apache Struts framework. I also learned a lot of Perl on the job, as the lead developer at the time thought it was the greatest thing man has ever invented.   |

## WORKSHOPS

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| 2017 | <b>"Software Carpentry: Version Control with Git"</b> — <i>Samvera Connect.</i> Taught the Version Control with Git course of the Software Carpentry curriculum. Rewritten completely with Alex Dunn and Chrissy Rissmeyer from UC Santa Barbara to cater to an audience of metadata librarians.                         |
| 2017 | <b>"Software Carpentry: Version Control with Git"</b> — <i>University of California, Santa Barbara.</i> Taught the Version Control with Git course of the Software Carpentry curriculum. Rewritten completely with Alex Dunn and Chrissy Rissmeyer from UC Santa Barbara to cater to an audience of metadata librarians. |

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| 2016 | <b>"Software Carpentry"</b> — <i>Scripps Institute of Oceanography, University of California, San Diego</i> . Taught the Version Control with Git course of the Software Carpentry curriculum. Substantially rewritten by me, for a grad-student focus after initial feedback. TA for The Unix Shell and Programming with Python courses. |
| 2016 | <b>"Library Carpentry"</b> — <i>The Library, University of California, San Diego</i> . Taught the Version Control with Git course of the Library Carpentry curriculum. TA for Unix Shell and Open Refine courses.   |
| 2016 | <b>"Software Carpentry"</b> — <i>Biomedical Library, University of California, San Diego</i> . Taught the Version Control with Git course of the Software Carpentry curriculum. TA for The Unix Shell and Programming with Python courses.  |

## PRESENTATIONS

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| 2017 | <b>"Code Readability and Productivity Tips"</b> — <i>Campus LISA Conference, University of California, San Diego</i> . Paper presenting common software development strategies and best practices. This covered topics such as refactoring, using good names, patterns developers should be able to recognize and name, as well as productivity tips in both Ruby and .NET languages. |
| 2016 | <b>"Open Source at UC San Diego"</b> — <i>Campus LISA Conference, University of California, San Diego</i> . Paper presenting how the UC San Diego Library has been able to participate in open source development, and the challenges presented by working with upstream projects using the Apache 2 license, and how we worked around it.  |
| 2015 | <b>"Co-working Space: Online Tools for Collaboration"</b> — <i>Campus LISA Conference, University of California, San Diego</i> . Paper presenting current tools that can be used for online collaboration and discussion of how they were integration into our workflows to make life more efficient. Covered technologies like Slack, Github, and Confluence.                        |
| 2014 | <b>"Programmer and Archivist Collaboration"</b> — <i>Society of California Archivists</i> . Forum-format presentation detailing how I worked closely with the Digital Library Project Manager, Cristela Garcia-Spitz, to come up with innovative ways of tracking progress of Digital Library project as well as development Sprints  |
| 2014 | <b>"The Evolution of the UC San Diego Library DAMS"</b> — <i>Digital Initiatives Symposium, University San Diego</i> . Paper presenting an over of the University of California, San Diego DAMS, the history behind it, and the use cases that drove the creation of a new system to support them   |
| 2014 | <b>"Software Development Process"</b> — <i>Campus LISA Conference, University of California, San Diego</i> . Paper presenting the test driven development process and related tooling I helped implement  |
| 2014 | <b>"Source Code Management"</b> — <i>Campus LISA Conference, University of California, San Diego</i> . Paper presenting the migration to using git, GitHub, and the git flow pattern for local development and release management that I helped implement.  |
| 2013 | <b>"ALL TEH METADATAS Re-revisited"</b> — <i>Code4Lib Conference</i> . Paper presenting a comprehensive ontology modeling project I was a primary contributor to at University of California, San Diego   |
| 2013 | <b>"Metadata and Repository Services for Research Data Collections"</b> — <i>Duraspace Hot Topics Webinar Series</i> . Part of a three part webinar series in which I spoke about our Digital Asset Management System and related metadata modeling to support Research Data Collections at University of California, San Diego   |

## PUBLICATIONS

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| 2010 | <b>"Using an Agile-based Approach to Develop A Library Mobile Website"</b> — <i>Matt Critchlow, Lia Friedman, Daniel Suchy</i> . Code4Lib Journal |
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| 2003 |  | <b>“An Environment for Managing Evolving Product Line Architectures”</b> — <i>Ping Chen, Matt Critchlow, Akash Garg, Chris Van der Westhuizen, and André van der Hoek.</i> In Proceedings of the International Conference on Software Maintenance, Amsterdam, Netherlands, September 2003      |
| 2003 |  | <b>“Differencing and Merging within an Evolving Product Line Architecture”</b> — <i>Ping Chen, Matt Critchlow, Akash Garg, Chris Van der Westhuizen, and André van der Hoek.</i> In Proceedings of the Fifth International Workshop on Product Family Engineering, Siena, Italy, November 2003 |

## INSTITUTIONS

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| 2011–2013 |  | <b>Professional Certificate in Project Management</b> — <i>University of California, San Diego.</i> |
| 1999–2004 |  | <b>B.S. in Computer Science</b> — <i>University of California, Irvine.</i>                          |

## TECHNICAL

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| LANGUAGES |  | Ruby, Java, PHP, Python, JavaScript, Bash, CSS, HTML. |
| MARKUP    |  | Markdown, YAML, HAML, L <sup>A</sup> T <sub>E</sub> X |

## HOBBIES

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| OPEN SOURCE |  | <a href="#">Solus (GNU/Linux Operating System)</a> , <a href="#">Samvera</a> |
| OTHER       |  | Cooking, Playing Guitar, Travel, Surfing                                     |