

Coral Sheldon-Hess

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Summary: Data analyst and inclusive leader with advanced degrees in engineering and library/information science. Skills and interests include using data ethically, working with open and civic data, improving accessibility and usability of digital interfaces, and communicating technical concepts to non-technical (or not-yet-technical!) audiences.

Tech skills: Python, R, LAMP (Linux, Apache, MySQL, PHP) stack, HTML5, CSS3, metadata, systems thinking, statistics, data visualization, meaningful technical communication, collaboration across silos and skill areas, empathy/user-focus

Selected Professional Experience:

Sr. Healthcare Economics Consultant, June 2022 - present

Optum

- Wrote, validated, and maintained Python and SQL code to build tables and reports for healthcare quality and cost metrics aimed at minimizing low-value care provided to Medicare Advantage members.
- Converted team's project tracking from Excel into Rally Agile PM Tool.
- Created a QA process for the team to use in testing monthly Tableau reports.
- Updated and edited Tableau reports and their data tables in response to UX issues and data defects.
- Learned and documented numerous processes in order to simplify onboarding of new team members and sharing of artifacts outside of the team.
- Currently working on setting up an Airflow and/or Jenkins pipeline to automate data loading and transformation.

Product Liaison Engineer, August 2021 - March 2022

Coiled Computing

- Reorganized and streamlined Customer Support Engineering processes and led stakeholders throughout the organization to get agreement on the team's immediate future direction, including hiring priorities.
- Unblocked data science users for a Python/cloud/data science startup.
- Interviewed and assessed candidates for hire.
- Grew QA testing infrastructure from reactive routine testing to encompass proactive new-feature testing.
- Performed exploratory, regression, unit, and end-to-end testing on Coiled product; identified testing issues; and wrote test plans.
- Added functionality to the Coiled API and Coiled Cloud code base (Python).
- Created and edited documentation.

Assistant Professor, Sept 2019 – July 2021

Community College of Allegheny County

- Worked collaboratively with colleagues to develop and assess the curriculum in CIT and DAT, including developing the initial offering of Data Analytics 2 (DAT 202).
- Taught remote/synchronous courses, online/asynchronous courses, and hybrids between the two, with an average student approval score of 4.6+ out of 5.
- Brought community partners (Nine Mile Run Watershed Association, Draw the Lines PA) into the classroom to give students experience with real data analytics projects.
- Maintained Blackboard shells for all courses, in addition to Slack workspaces, to support and build community among students in DAT and CIT.

- Was awarded a grant to review OERs for use in DAT courses.
- Courses taught:
 - CIT 100 - Computer Fundamentals & Applications
 - CIT 115 - Information Technology Fundamentals
 - CIT 125 - Web Development (HTML, CSS, visual design)
 - CIT 145 - Programming in C
 - CIT 215 - Systems Analysis & Design (software development lifecycle)
 - MMC 150 - Interactive Front-End Development (JavaScript)
 - DAT 119 - Python 1 (plus an intro to command line interfaces)
 - DAT 201 - Data Analytics 1 (SQL, GIS tools, OpenRefine)
 - DAT 202 - Data Analytics 2 (Forecasting, pandas, GitHub practice)
 - DAT 204 - R for Analytics
 - SEM 105 - College Seminar (information literacy and "how to college")

Librarian and Web Developer, Dec 2014 – Jul 2019

Freelance/Self/Contract

- Taught CCAC's Python 1 (DAT 119), co-developed and team-taught the initial offering of Data Analytics 1 (DAT 201) in Spring 2019.
- Assisted patrons at CCAC Library's reference and circulation/reserves desks, including performing reference interviews and providing reader advisory services.
- Taught library instruction sessions and created online learning objects in LibGuides.
- Updated and converted the University of Maryland College of Information Studies course INST 630, Introduction to Programming for the Information Professional (in JavaScript), to online format and taught a section in fall 2016.
- Located books, articles, theses, and conference proceedings; verified authenticity and date of public availability; and wrote declarations attesting to those findings for use in patent litigation.
- Maintained and updated websites, primarily in WordPress.

Web Services Librarian/Assistant Professor, Oct 2009 – Sept 2014

University of Alaska Anchorage

- Designed, maintained, and improved library websites and web services (LAMP).
- Performed troubleshooting on subscription database access, including OpenURL resolving, EZProxy settings, and discovery layer issues.
- Served on the workgroups that chose the library's discovery layer and the consortium's OPAC.
- Chaired Web Development Team; and proposed, designed, and chaired Social Media Team; served on Assessment Team.
- Created the plan and supporting documentation for development of the library's web presence in a user-centric direction.
- Created a model for thinking about user-centricity of organizations. Both the model and the plan (previous bullet) have been used by user experience librarians and by libraries doing their own planning, internationally.
- Rapidly taught self on, then trained and supported colleagues in the use of web-based technologies.
- Served as liaison to/collection developer for School of Engineering.
- Provided in-person, phone, and online reference service.
- Installed and customized open-source web applications (e.g. LibStats, Omeka - PHP/MySQL) and led acquisition and implementation of web applications purchased from vendors (e.g. LibCal, LibAnswers), including coordinating policy development around their use.

- Managed multiple content management systems, including MODX, WordPress multi-site, LibGuides, and Open Atrium (a constrained form of Drupal).
- Created and edited videos and images for the web (Adobe suite, Camtasia).
- Performed usability testing on websites and vendor-supplied applications.
- Served as Acting Head of Systems in department head's absence (approximately 14 weeks).

Senior Consultant, Jun 2006 - Feb 2008

Booz Allen Hamilton

- Supported US DOT's Vehicle Infrastructure Integration (VII, now Intellidrive) program as a wireless systems engineer, software requirements analyst, and project manager.
- Wrote sections of, managed subcontractors' input to, and coordinated/edited 60+ team members' contributions to the VII System Requirements Specifications.
- Refined document creation workflows, increasing documents' accuracy and decreasing creation time significantly.
- Analyzed/edited requirements for VII subsystems and applications, maintaining and updating requirements in Rational Requisite Pro.
- Contributed to several proposal teams, writing a key technical section of a \$93M proposal and writing as well as editing/coordinating authors' contributions to a \$6M proposal.
- Recruited and interviewed candidates for hire.

Education:

University of Pittsburgh – Master of Library and Information Science, 2009

Carnegie Mellon University – MS, Electrical and Computer Engineering, 2005

University of Virginia – BS, Electrical & Computer Engineering - *With Highest Distinction*, 2003 Minors: Computer Science, Chinese Language & Culture

Selected Honors and Awards:

- Scholarship recipient for Microsoft and Udacity Foundations of Machine Learning on Azure course
- 2017 NASA Datanaut
- ALA 2012 Emerging Leader, sponsored by the ACRL Science & Technology Section
- Pacific Northwest Library Association "LEADS" Leadership Institute, October 2010
- UCLA student scholarship to attend Electronic Resources & Libraries 2009
- Performance Recognition Award (Booz Allen Hamilton), 2006 – For outstanding support and dedication in developing the subsystem specifications and interface requirements for the Vehicle Infrastructure Integration Project.
- Rodman Scholar (University of Virginia), 2000-2003; Echols Scholar, 1999-2000

Conference Presentations and Panels:

- "Command Line Bootcamp," Co-leader, Code4Lib Preconference, 3/7/2016.
- "Level Up Your Coding with Code Club (yes, you can talk about it)," Code4Lib, 2/10/2015.
- "Inside the Notification Service," SHARE 2014 Fall Meeting, 10/13/2014.

- "Challenges of Gender Issues in Technology Librarianship," Panel Discussion, ALA Midwinter Meeting, 1/25/2014.
- "Getting buy-in on user centricity," LITA National Forum, 11/10/2013.
- "Back in the Stacks, Bringing Professional Organization into Professional Life," ACRL New Members Discussion Group Panel Discussion at ALA Midwinter, 1/27/2013.