

Michael Lenard

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EDUCATION

- M.S.I. Information, University of Michigan School of Information, 2020
- M.S. Physical Chemistry, University of Michigan, 2017
- B.A. Political Science, Michigan State University, 2011
- B.S. Physics, Michigan State University, 2011

PROFESSIONAL POSITIONS

- 2020– Project Manager, Thomer Lab, University of Michigan School of Information

PROFESSIONAL AND ACADEMIC INTERESTS

Research data: data curation and management, facilitating access to research data, data cleaning and processing, developing and documenting transparent data workflows

Natural science informatics: using the principles and techniques of information science to improve, analyze, & interpret data relevant to pressing problems

Libraries' role in science: outreach, open & equitable access to scientific research and resources, citizen & community science projects

Semantics-based knowledge organization: linked data, taxonomies, ontologies, thesauri, classification schemes, and controlled vocabularies

WORK, RESEARCH, & PROJECT EXPERIENCE

- 2019– Research Assistant, Thomer Lab, University of Michigan School of Information
 - Analyzed the applicability of the PROV ontology to unstructured dataset descriptions
 - Cleaning natural history data and fitting it to appropriate data models
- 2018–20 Resident & Program Assistant, Shapiro Design Lab, University of Michigan Library
 - Created data processing workflows for the Lab's Zooniverse projects
 - Crosswalked Ann Arbor biodiversity data to Darwin Core for upload to GBIF
- 2020 Summer Librarian, University of Michigan Biological Station
 - Provide reference services and instruction to UM Biostation students
 - Assist with collection development and Station data management projects

- 2019 Technical Services Project Assistant, University of Michigan Library
 - Analyzed BIBFRAME record dataset to determine data quality and fitness for use
- 2015–17 Research Assistant, Geva Group, University of Michigan Dept. of Chemistry
- 2013–14 Research Assistant, Hoogstraten Laboratory, Michigan State University Dept. of
 Biochemistry and Molecular Biology

INSTRUCTION EXPERIENCE

University of Michigan

- SI 666: Organization of Information Resources (Graduate Student Instructor)
- SI 106: Programs, Information, and People (Graduate Student Instructor)
- SI 699: Digital Curation Mastery Course (Tutor)
- CHEM 125/126: General Chemistry Laboratory I & II (Graduate Student Instructor)
- CHEM 453: Biophysical Chemistry I (Graduate Student Instructor)
- CHEM 260/261: Chemical Principles & Introduction to Quantum Chemistry (Graduate Student Instructor)
- CHEM 230: Physical Chemical Principles and Applications (Graduate Student Instructor)

Michigan State University

- PHY 184: Physics for Scientists and Engineers II (Teaching Assistant)
- PHY 232: Introductory Physics II (Teaching Assistant)
- PHY 191: Physics Laboratory for Scientists I (Teaching Assistant)
- PHY 251: Introductory Physics Laboratory I (Teaching Assistant)
- PHY 102: Physics Computations I (Teaching Assistant)

PUBLICATIONS

Articles

- 2017 Jafari, M.; Welden, A.; Williams, K.; Winograd, B.; Hendrickson, H.; **Lenard, M.**; Gottfried, A.; Geva, E. "Compute-to-Learn: Authentic Learning via Development of Interactive Computer Demonstrations within a Peer-Led Studio Environment." *J. Chem. Ed.* 2017 94 (12): 1896–1903. DOI: <https://pubs.acs.org/doi/10.1021/acs.jchemed.7b00032>
- 2015 Wiley, T.; Arruda, B.; Miller, N.; **Lenard, M.**; Sension, R. "Excited electronic states and internal conversion in cyanocobalamin." *CCL* 2015 26 (4): 439–44. DOI: <https://doi.org/10.1016/j.cclet.2015.03.003>

White Papers

- 2021 **Lenard, M.**; Thomer, A. K. Title for NAS report appendix.

PRESENTATIONS

Posters

2020 **Lenard, M.** “Zooniverse Data Workflows.” Poster presented at: UMSI QuasiCon; February 2020; Ann Arbor, MI.

SKILLS

Knowledge of scientific literature, the scientific research process, and the research data lifecycle

Experience with Darwin Core, MARC, BIBFRAME, XML, JSON, RDF, RDFS, SKOS, OWL, PROV, and various other data and metadata standards

Competency with Python, R, Regular expressions, SQL, SPARQL, OpenRefine, Protégé, Mathematica

Familiarity with statistical analyses and data cleaning and wrangling techniques

Experience working with large, heterogeneous scientific databases and datasets

Ability to learn new systems and software quickly, including *inter alia* integrated library systems, stats packages, various APIs, and database software

AWARDS, HONORS, AND FELLOWSHIPS

2019 Rackham Diversity, Equity, and Inclusion Certificate

2014–17 Rackham Science Award (Fellowship)

2011–12 Kaplan, Strangis and Kaplan Law School Scholarship

2011–12 Dean’s Distinguished Scholarship

2010 Herbert T. Graham Scholarship

2006–10 Michigan Competitive Scholarship

PROFESSIONAL AND ACADEMIC SOCIETIES

Previous

2014–19 Graduate Employees Organization #3550

2012–13 qUALMS (the q Undergraduate Association for Linguistics at Michigan State)

2006–13 Society of Physics Students

2012 Asylum Law Project

2011–12 American Constitution Society

2011–12 Minnesota Justice Foundation

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