

SARA LAFIA

Ph.D. Candidate • Department of Geography • University of California, Santa Barbara

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Education

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| Ph.D. in Geography | Expected 2020 |
| University of California, Santa Barbara (UCSB) | |
| Emphasis in Information Technology and Society | |
| <i>Dissertation:</i> Spatially Supported Thematic Discovery of Research Data | |
| <i>Committee:</i> Werner Kuhn (Chair), Jim Frew, and Kelly Caylor | |
| M.A. in Geography | 2017 |
| University of California, Santa Barbara (UCSB) | |
| <i>Thesis:</i> Spatial Discovery and the Research Library | |
| <i>Committee:</i> Werner Kuhn (Chair), Krzysztof Janowicz, and Katja Seltmann | |
| B.S. in Urban Planning & B.S. in Geography - GIS, Valedictorian | 2014 |
| Kellogg Honors College at California State Polytechnic University, Pomona (CPP) | |

Honors and Awards

Fellowships and Scholarships

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| Robert Raskin Scholarship : Earth Science Information Partners | 2018 |
| Jack & Laura Dangermond Graduate Fellowship : UCSB Department of Geography | 2017 |
| Greater Research Opportunities Fellowship : U.S. Environmental Protection Agency | 2012 - 2014 |
| Prete Environmental Education Fellowship : Lyle Center for Regenerative Studies | 2012 - 2013 |

Awards

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| Womxn/Hacks Hackathon (Winner - Best Use of Google Cloud Platform): UCSB, CA | 2019 |
| SAP + Esri Spatial Hackathon (Finalist - Geo machine learning): Esri DevSummit, Palm Springs, CA | 2018 |

Travel Grants

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| Graduate Student Synthesis Workshop Invitation: National Socio-Environmental Synthesis Center | 2017 |
| DataONE Users Group Meeting Travel Grant: National Center for Ecological Analysis and Synthesis | 2016 |
| Jack & Laura Dangermond Travel Grants: UCSB Department of Geography | 2014 - 2018 |
| Google Geo for Higher Education Summit Invitation: Google | 2014 |

Publications

Refereed Academic Journal Articles

Lafia, S., & Kuhn, W. (2018). [Spatial Discovery of Linked Research Datasets and Documents at a Spatially Enabled Research Library](#). *Journal of Map & Geography Libraries*, 1-19.

Coggins, B. L., Lafia, S., & Torghabeh, B. V. (2018). [Dramatic Change in North Korea: Instability and Human Flight Propensity](#). *North Korean Review*, 14(1), 49-70.

Lafia, S., Jablonski, J., Kuhn, W., Cooley, S., & Medrano, F. A. (2016). [Spatial discovery and the research library](#). *Transactions in GIS*, 20(3), 399-412.

Refereed Conference Proceeding Papers

Lafia, S., Last, C., & Kuhn, W. (2019). Enabling the Discovery of Thematically Related Research Objects with Systematic Spatializations. In progress.

Lafia, S., Turner, A., & Kuhn, W. (2018). [Improving Discovery of Open Civic Data](#). In *10th International Conference on Geographic Information Science (GIScience 2018)*. Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik.

Allen, C., Hervey, T., Lafia, S., Phillips, D. W., Vahedi, B., & Kuhn, W. (2016). [Exploring the Notion of Spatial Lenses](#). In *International Conference on Geographic Information Science* (pp. 259-274). Springer, Cham.

Short Papers, Workshop Proceedings, and Reports

Seltmann, K., Lafia, S., Paul, D., James, S., Bloom, D., Rios, N., ... & Davis, E. (2018). [Georeferencing for Research Use \(GRU\): An integrated geospatial training paradigm for biocollections researchers and data providers](#). *Research Ideas and Outcomes*, 4, e32449.

Golubovic, N., Krintz, C., Wolski, R., Lafia, S., Hervey, T., & Kuhn, W. (2016, October). [Extracting spatial information from social media in support of agricultural management decisions](#). In *Proceedings of the 10th Workshop on Geographic Information Retrieval* (p. 4). ACM.

Lafia, S., & Staehli, L. (2016). [From Research Objects to Research Networks: Combining Spatial and Semantic Search](#). In *SDW@ GIScience* (pp. 35-40).

Presentations

Oral Presentations

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| "Spatial Data Discovery at UCSB: Future Directions." Open Access Week, UCSB Library | 2018 |
| "Improving Discovery of Open Civic Data." GIScience: Melbourne, Australia | 2018 |
| "Discovering Spatial Data for Our Changing Earth." ESIP: Tucson, Arizona | 2018 |
| "Discovering and Sharing Campus Scholarship." Center for Spatial Studies: Santa Barbara, CA | 2017 |
| "Linking Geographic Footprints to Topic Spaces." UCSB Graduate Slam: Santa Barbara, CA | 2017 |

- “From Research Objects to Research Networks.” WAML at Stanford University: Palo Alto, CA 2016
- “Spatial Discovery and the University Library.” ESRI User Conference, TGIS Session: San Diego, CA 2016
- “People and Places: Resource Discovery in a Library Context.” AAG: San Francisco, CA 2016
- “Degrees of Separation: Measuring Musicians and Places.” spatial@UCSB: Santa Barbara, CA 2016

Poster Presentations

- “Research Trajectories: Topic Models of UCSB Graduate Research.” MAT EoYS: Santa Barbara, CA 2017
- “Computing with Core Concepts of Spatial Information.” COSIT: Santa Fe, New Mexico 2015

Research Experience

- Graduate Student Researcher:** Center for Spatial Studies, Santa Barbara, CA 2016 - present
 - Leveraged Esri’s Open Data platform for spatial discovery and linking of research datasets and publications
- Engineering Intern:** Esri Research & Development, Arlington, VA 2017
 - Improved search for civic datasets through extension and application of Hub ontology for Open Data
- Research Assistant for Dr. Bridget Coggins:** Department of Political Science, UCSB 2017
 - Developed a spatial agent-based model with another graduate student simulating flight-risk in North Korea
- Informatics Intern:** NCEAS, Santa Barbara, CA 2016
 - Extended an ontology for semantic metadata annotation and provenance tracking of ecological datasets
- NASA DEVELOP Student Contractor:** Jet Propulsion Laboratory, Pasadena, CA 2013 - 2014
 - Expedited the validation of Damage Proxy Maps derived from imaging radar data of U.S. natural disasters
- NSF-REU Summer Research Assistant:** University of Nevada, Reno, NV 2012
 - Managed data within a USGS Great Basin ArcGIS database and ran statistical analysis on results in SPSS

Teaching Experience

- Teaching Associate:** UCSB 2017, 2018
 - Instructed courses *Introduction to GIS* (28 students) and *Geography of California* (60 students) and received excellent student evaluations of course quality and teaching
- Research Mentor for Undergraduate Student:** Center for Spatial Studies, UCSB 2017 - 2018
 - Supervised development of a research network visualization by visiting scholar from University of Bristol
- Workshop Instructor:** iDigBio Georeferencing Workshop at NCEAS, Santa Barbara 2016
 - Developed training materials and sample data for a QGIS training workshop held for collections managers
- Research Mentor for Undergraduate Student:** Center for Spatial Studies, UCSB 2015

- Supervised development of a spatial data publication workflow by summer intern from Clark University

Freshman Seminar Co-Instructor: Department of Computer Science, UCSB 2015

- Introduced computer science students to GIS, designed learning activities, and facilitated faculty talks

Teaching Assistant: UCSB 2014 - 2018

- Led course sections for *Introduction to GIS, People, Place, and Environment, Analytical and Computer Cartography*, and *Geography of Surfing* and received excellent student evaluations

Academic Service

Meeting Co-organizer: Spatial Discovery Expert Meetings, Center for Spatial Studies 2015, 2017, 2019

- Co-organized agenda and session topics on state of the art in search at the nexus of libraries and GIScience

Graduate Student Association Representative: Associated Student Government, UCSB 2018 - 2019

- Served as an elected department representative and campus liaison for Geography graduate students

Workshop Co-organizer: Core Computations on Spatial Information at GIScience in Melbourne, Australia 2018

- Planned agenda, reviewed invited papers and talks, and moderated discussion at a half-day workshop

Graduate Student Representative: Associated Students Campus Bicycle Committee, UCSB 2017 - 2018

- Evaluated infrastructure, fielded complaints, and deployed a web application for mapping campus projects

Faculty Search Committee Graduate Representative: Environmental Data Science Search, ERI 2017

- Reviewed candidate materials, hosted lunches for invited candidates, and voiced graduate student opinions

GIS Help Desk Consultant: Center for Spatial Studies, UCSB 2017

- Advised students, staff, and faculty from many departments with GIS needs on projects

Skills

Certifications

Certificate in College and University Teaching (CCUT) Expected 2020

Summer Teaching Institute for Associates (STIA) 2017

Software

ArcGIS, ArcGIS Server, QGIS, GDAL

Protégé, Processing, Git

Languages

Java, Python, HTML5 and CSS with Javascript

English (native language), Spanish (intermediate - reading, writing)