

Laurel Sparks

Curriculum Vitae

Lexington, Kentucky 40508

Department of Geography / University of Kentucky

478-394-5007 / lbsp232@uky.edu

EDUCATION

- 2023 – **University of Kentucky**, Lexington, KY
Master of Arts in Geography
Certificate in Digital Mapping
NSF Graduate Research (GRFP) Fellow
- 2022 **Georgia State University**, Atlanta, GA
Bachelor of Science in Environmental Geosciences, Honors Laureate
Minor in Computer Science, Certificates in Sustainability & Geographic Information Systems
Summa Cum Laude
4.04 GPA
- 2019 **Middle Georgia State University**, Macon, GA
Associates of Art in Modern Languages (Dual-Enrollment)
4.00 GPA

HONORS, AWARDS, & FUNDING

- 2023 – 2027 Graduate Research Fellowship (\$111,000), National Science Foundation
- 2022 Louis Stokes Alliance for Minority Participation (\$2,000), Georgia State University
- 2022 Marble-Boyle Undergraduate Achievement Award in Geographic Science (\$1,000), American Association of Geographers
- 2022 Second Place Winner & Sheth Family Foundation Innovation Award, Hack 4 Good: Transportation-Social Justice Hack-a-thon, Georgia State University
- 2022 Second Place Winner in Applied Research and Innovation, Georgia State University Undergraduate Research Conference
- 2022 Outstanding Undergraduate Award, Georgia State University Department of Geosciences
- 2022 Borden D. Dent Cartography Award Recipient, Georgia State University Department of Geosciences

- 2021 David E. Ogren Memorial Endowment Scholarship Recipient, Georgia State University Department of Geosciences
- 2020 Benjamin A. Gilman International Scholarship Recipient
- 2019 – 2022 President's List, Georgia State University
- 2019 – 2022 CSA Banks Scholarship Recipient

RESEARCH & WORK EXPERIENCE

- 2023 – **Teaching Assistant: University of Kentucky (GEO 109: Digital Mapping)**
- Effectively communicated geospatial concepts to recitations of 25+ students
 - Conducted GIS demos/workflows in QGIS and VSCode
 - Graded and managed assignments and submissions for 75+ students
- 2023 **The Ray Highway GIS Analyst Intern**
- Assist/conduct suitability analysis for allocation of alternative energy generation along state/federal right of ways
 - Produce GIS standards of procedures and communicate technical concepts to non-technical stakeholders
 - Utilize ArcGIS Modelbuilder and ArcPy
- 2022 **Undergraduate Research Assistantship: Socio-Spatial Analysis Lab**
(Lab Director: Dr. Taylor Shelton)
- Prepared large-scale datasets of property ownership in Fulton County that span 15+ years
 - Utilized Python and Alteryx for data preparation and cleaning
 - Collaborated on writing deliverables for online publication
- 2022 **Undergraduate Research Assistantship: Geospatial Health Lab**
(Lab Director: Dr. Dajun Dai)
- Conducted geologic field research and mapping
 - Produced 3D geologic visualizations with VR/interactive compatibility
 - Produced USGS cartographic deliverables and technical report
- 2022 **CitizenScienceGIS Research Experience for Undergraduates**, University of Central Florida, Orlando, FL
- Collaborated with community members and fellow researchers to design flood/disaster preparedness research
 - Designed and implemented qualitative interviews and quantitative field collection efforts
 - Conducted UAV flights and utilized imagery to assist in flood/inundation-risk analysis

- 2021 **Climate Change Science, Impacts, and Resilience Research Experience for Undergraduates**, University of North Carolina–Asheville, Asheville, NC
- Assisted NOAA research scholars in the study and publication of a piece of literature studying green space and pregnancy
 - Computed geospatial data used in the analysis of access to green space
 - Developed statistical index to measure the availability of green space in the Carolinas
- 2021 – 2022 **Gwinnett County Department of Transportation GIS/Public Outreach Intern**
- Assisted Gwinnett DOT with GIS needs: data visualization, remote project assessment, and geospatial data management
 - Utilized ESRI ArcGIS products to identify and manage county right of way for future SPLOST-transportation development
 - Collaborate with Georgia DOT and conduct outreach to underserved segments of Gwinnett County regarding the development of I-85 Study
- 2020 – 2022 **Supplemental Instruction Leader: Biology 1104K & Geosciences Tutor: Introductory Geology and Geography Courses**
- Prepare and facilitate tutoring workshops and academic support sessions for groups of students (10-30 per session)
 - Review class material with students by discussing course readings, working out problem solutions, and reviewing different assignments
 - Communicate advanced scientific concepts to audiences of various understandings and backgrounds

PUBLICATIONS

- 2022 United States Geological Survey (Prepared by Dabbs, F., **Sparks, L.**, Hidalgo, P. & Dai, D.). Technical Report: Geologic Mapping and 3D Visualization of the Southern Half of Chamblee Quadrangle, Georgia.
- 2022 Dabbs, F., **Sparks, L.**, Hidalgo, P., & Dai, D. Geologic Map of the Southern Half of Chamblee Quadrangle, Georgia.
- 2021 Runkle, J.D., Matthews, J.L., **Sparks, L.**, McNicholas, L., & Sugg, M.M. Racial and ethnic disparities in pregnancy complications and the protective role of greenspace: A retrospective birth cohort study. *Science of The Total Environment*, 808: 152145. DOI: 10.1016/j.scitotenv.2021.152145.

PRESENTATIONS

- 2023 **Sparks, L.** Community-Based Geospatial Methods: Flood Management and Response in Hopkins Village, Belize: Critical Reflections and Hopeful Futures. Southeastern Division of the American Association of Geographers, Norfolk, VA. November 20.
- 2022 **Sparks, L.** Exploratory Use of Traffic Accident Data to Measure COVID-19 Related Changes in Mobility and Driver Behavior in Atlanta, Georgia.

Southeastern Division of the American Association of Geographers, Atlanta, GA.
November 19.

- 2022 Aden, A., **Sparks, L.**, & Zhen, C. Community-Based Work: Flooding and Disaster Management in Hopkins, Belize. ESRI Ocean, Weather, and Climate Forum, Redlands, CA. November 9.
- 2022 **Sparks, L.** Where People are Severely Injured or Killed on Roads: A Geospatial Analysis of Traffic Accidents in Atlanta. Georgia State University Undergraduate Research Conference, Atlanta, GA. April 14.

EXTRACURRICULARS

- 2024 Dimensions of Political Ecology (DOPE+) Conference Organizer; Hosted at the University of Kentucky
- 2023 – Equity and Inclusion Graduate Student Representative, University of Kentucky
- 2021 – 2023 Sustainability Fellowship Coordinator, Georgia State University
- 2019 – 2022 President, Panther Food Recovery Network
- 2021 Atlanta Sustainability Ambassador

SKILLS

Language Proficiencies: Python, SQL, Java, Matlab, HTML

Software Proficiencies: QGIS, ESRI ArcGISPro Suite (ArcMap/ArcCollector/Survey123)
Alteryx, Tableau, SPSS, Blender, Github