

Lily Houtman

cartographer and web developer

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INTERESTS

HCI/UI/UX design, mobile and web cartography, usability engineering, data journalism, geonarratives

EDUCATION

University of Wisconsin – Madison: Cartography and GIS, B.S. (Honors); Anthropology, B.S. (Graduation: Spring 2022)

Dean's List, Fall 2018 to Spring 2020, GPA 4.0

Senior Honors Thesis: *Mapping Presidential Elections: An Empirical Analysis of Effective Design Techniques*

TECHNICAL SKILLS

Web Development and Cartography

- JavaScript (including Leaflet and D3 map libraries)
- HTML/CSS/SCSS
- FrontEnd Frameworks (Bootstrap, Vue)
- ESRI Suite (ArcGIS JS API, ArcGIS Pro, AGOL, StoryMaps)
- Mapbox (GL JS and Studio)
- QGIS
- Git/GitHub

Data Visualization and Analysis

- Adobe Creative Cloud (Illustrator, Photoshop, InDesign)
- R and RStudio
- Tableau
- Blender
- Microsoft Excel
- Python

CARTOGRAPHIC and DEVELOPMENT EXPERIENCE

YEARS(S)

Software Development Intern – United States Geological Survey

2021-Present

- Use JS, HTML, and CSS to develop interactive web maps and applications to meet needs of USGS scientists
- Update current USGS interactive maps and applications for mobile use and address accessibility concerns
- Conduct user tests using wireframes and prototype applications to improve UI/UX design

Teaching Intern – UW-Madison Department of Geography

2021-Present

- Assist in developing lecture and lab content for Intro to Cartography and Interactive Cartography courses
- Teach lab section on use of GitHub and remote collaboration, preparing students for the workforce
- Meet with students to debug code, reinforce cartographic design principles, and brainstorm projects

Cartographic Technical Writer – UN Geospatial Team and UW–Madison Cartography Lab

2021-Present

- Develop a [QGIS technical supplement](#) to the open-source textbook [Mapping for a Sustainable World](#)
- Following tests with users of varied skill levels, design for beginners and translation into other languages

Cartography Textbook Contributor – Dr. Robert Roth, Professor of Cartography

2020-Present

- Edit [interactive cartography textbook](#) to improve language on use of GitHub and remote collaboration
- Reinforce established style guide across textbook chapters to improve user comprehension and retention
- Analyze student surveys to identify issues in course instruction, textbook language, and web map technologies

Student Cartographer – UW-Madison Cartography Lab

2020-Present

- Create maps for diverse clientele using ESRI and Adobe software, OSM, Excel, and other tools as needed
- Problem solve with clients and student collaborators to produce maps meeting cartographic standards

Data and Graphics Journalist – The Daily Cardinal

2020-Present

- Collaborate with student journalists to create visual stories using ESRI and Adobe software, Tableau, and R
- Assist new journalists in data visualization and accessibility fundamentals to improve the graphics team

GIS Field Assistant – Swartkrans Paleoanthropology Field School

2019

- Operate and teach use of total station technology to accurately record geographic information for future use
- Gain lab experience in the physical sciences including data cataloguing and cleaning

AWARDS

McPherson Eye Research Institute Undergraduate Research Grant – Thesis: [Mapping Presidential Elections](#)

Letters & Science Honors Mark Mensink Senior Honors Thesis Grant – Thesis: [Mapping Presidential Elections](#)

Barbara Bartz Petchenik First Place Award for Cartographic Design – Map: [Human Evolution in the East African Rift Valley](#)

Geography Department Jerome Kohn Grant – Tutorial: [Mapping for a Sustainable World QGIS Technical Supplement](#)

Barbara Bartz Petchenik Second Place Award for Cartographic Design – Map: [Wisconsin's 2020 Democratic Primary](#)