# 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)

**<u>Software Development Intern</u>** – 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*

**<u>Teaching Intern</u>** – 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*

**<u>Cartographic Technical Writer</u>** – 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*

**<u>Interactive Cartography Course Content Editor</u>** – Dr. Robert Roth, Professor of Cartography　　2020-Present
- *Edit interactive cartography textbook to improve language on use of GitHub and remote collaboration*
- *Reinforc 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*

**<u>Student Cartographer</u>** – 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*

**<u>Data and Graphics Journalist</u>** – 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*

**<u>GIS Field Assistant</u>** – 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*