Abigail Gleason

2122 S. Whitney Way • Madison, WI 53711 • 608.509.3748 • amgleason2@wisc.edu

Please visit my portfolio at https://abigail770.github.io/portfolio/ to view some of my work.

EDUCATION

University of Wisconsin – Madison
M.S. GIS and Web Map Programming, May 2021

B.A., Geography, December 2016
Certificate in Chinese Professional Communications, December 2016

Nankai University, Tianjin, China
May – August 2014
Study Abroad intensive language program through UW-Madison International Academic Programs.
Earned 12 credits in Mandarin Chinese and traveled independently in China on breaks and weekends.

Academic Honors & Awards:
- Phi Beta Kappa Honor Society
- Dean's List
- Study Abroad Scholar

Technical Skills:
- Software applications including ArcGIS, QGIS, SYSTAT, Microsoft Excel, Adobe Illustrator and Photoshop, and geospatial tools utilized through work at Mandli Communications.
- Experience in programming languages and libraries including Python, HTML5, CSS, Carto.css, and JavaScript (Carto.js, Leaflet, jQuery, D3). Some experience in Java and PHP.
- Experience with relational databases including PostgreSQL, Microsoft Access, and Carto.
- Experience with GitHub.

WORK HISTORY

State Cartographer's Office (SCO), Madison, WI
January 2020-present
GIS Developer
- Utilize JavaScript, CSS, HTML, and various JavaScript libraries (including Leaflet, jQuery and Carto) to update, revise and create SCO web applications.
- Develop a web application to visualize COVID-19 model data for UW Professor Song Gao using D3.js.
- Implement mobile responsive techniques in SCO web applications.
- Create various python scripts, including a script to create a point shapefile for aerial imagery available in Wisconsin using the USGS Earth Explorer API.
- Update and revitalize a web application displaying Wisconsin cities, towns, villages, and counties and playing audio files with place name pronunciations on feature click.
- Utilize ArcMap and SQL to process county parcel data and ensure county parcel submissions meet the state's Searchable Format requirement.
- Maintain and organize SCO's Carto datasets.
- Assist in updating SCO's Wordpress website from version 4 to 5 and troubleshooting theme, plugin and other update issues.
- Assist in various ongoing SCO projects.

Wisconsin Emergency Management, Madison, WI
July 2020-present
GIS Intern
- Create static maps using ArcMap and ArcPro for the Hazard Mitigation team as well as for the 2021 State Hazard Mitigation Plan. Projects include creating a map to track county/tribal mitigation plan statuses in the state, a wind zone map displaying tornado saferoom locations in Wisconsin, county land cover maps, and various other maps used in documents and presentations.
- Employ statistical analysis to update a Loss Avoidance Study conducted in Gays Mills, WI of flooding mitigation projects. Create modeled floodplain maps using ArcHydro tools.
- Create an ESRI StoryMap about mitigation efforts in Gays Mills, WI.
- Create ArcOnline Web Maps and Web Apps, including a map displaying parcels located in 100- or 500-year flood zones.
- Presented at Wisconsin's Silver Jackets Mitigation meeting.

Mandli Communications, Fitchburg, WI
January 2017 – December 2019
Geospatial Technician
- Performed data quality checks on photolog, LiDAR, LCMS and GPS data.
- Performed coverage checks on various projects using Google Earth and QGIS.
- Post-processed GPS data for both Atlans and Applanix.
- Validation analysis
- Edited project shapefiles in QGIS.
- Managed crews in the field for various state projects
- Managed, organized and tracked data collection.
- Utilized the Collection Department's JIRA ticket system to communicate within and across departments.

Field System Relief (periodic)
- Collected LiDAR, pavement, and photolog data in Hawaii, Tennessee, Oklahoma, and various other states using Mandli collection vehicles and systems built in house.
- Operated proprietary collection software and planned routes designated in KML files.
- Drove collection vehicles and performed daily system checks and maintenance as needed.
- Performed weekly validations at designated sites.

Data Technician
- Evaluate and edit LiDAR and photolog data using proprietary software.
- Identify the size, location, and properties of mowable areas, signs, lines, pavement distress, and other assets.
- Train and assist other processors in learning new project rules.
- Perform quality checks on completed work and assist the Data Specialist in performing monthly predelivery checks. Merge shapefiles and perform checks in ArcMap to create final deliverable product.
- Ensure quality and efficiency in the delivery of data to Departments of Transportation.
- Use Excel Online, Sequel Pro, proprietary and other software to track and manage data reduction.

University of Wisconsin Arboretum, Madison, WI
May 2016 – December 2016
Assistant Ranger
- Act as ecosystem steward, maintain trails, provide security, patrol trails and grounds.
- Interact with Arboretum visitors: answer questions, enforce rules, attend to the reception desk, ensure visitor safety.
- Operate Arboretum vehicles and machinery, including brush saws, string trimmers, Kubota, and Gator.

University of Wisconsin-Madison Culinary and Dining Services, Madison, WI
August 2013 – May 2016
Team Member
- Prepare and serve food; perform cleanup chores; maintain inventory; operate cash register.

VOLUNTEER EXPERIENCES

Baha'i Children's Classes
January 2016 – Present
Children's class teacher
- Teach and plan children's classes (Ages 3 – 5).
- Attend and tutor study groups of Baha'i writings and materials.
- Initiated and led a service-oriented youth group for 11–14-year-olds in a low-income, high-crime neighborhood in Madison.

Dane County Humane Society
January 2018 – March 2020
- Animal care volunteer

Ice Age Trail Alliance
2009 - 2018
Occasional work-day volunteer
- Work with Dane County Chapter volunteers to restore oak savanna and prairie ecosystems. Work includes clearing invasive species and unwanted trees and undergrowth, applying herbicides, and planting seeds in restoration areas.