Abigail Gleason

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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:
Have developed technical skills that include working with various 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).

WORK HISTORY

Wisconsin Emergency Management, Madison, WI
June 2020-present

GIS Intern
- Carry out GIS projects for the Hazard Mitigation department.
- Update Loss Avoidance study conducted for Gays Mills, WI with recent flood event data. Create floodplain maps using ArcHydro toolset.
- Create county/tribal jurisdiction mitigation planning status maps.

State Cartographer's Office, Madison, WI
January 2020-present

GIS Developer
- Utilize JavaScript, CSS, HTML, and various JavaScript libraries (including Leaflet, jQuery and Carto) to refine S.C.O. applications, including the Public Land Survey System (PLSS) Locator application.
- Utilize ArcMap and SQL to process county parcel data and ensure county parcel submissions meet the state's Searchable Format requirement.
- Plan and implement a web app to visualize UW Professor Song Gao's Covid-19 models.
- Assist in various ongoing S.C.O projects.

Mandli Communications, Fitchburg, WI
January 2017 – December 2019

Geospatial Technician
- Perform data quality checks on photolog, LiDAR and Laser Crack Measurement System (LCMS) data.
- Perform data coverage checks using Google Earth and QGIS.
- Post-process GPS data.
- Assist in editing project shapefiles in QGIS.
- Create and edit KMLs using Google Earth and various other software.
- Process weekly LiDAR and pavement validations in order to maintain accurate and high quality data

and ensure equipment functionality.
- Troubleshoot LiDAR and LCMS system issues when validation failure occurs.
- Set up validation sites and perform ground truth SurPro surveying in front of customers.

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.
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- Perform quality checks on completed work and assist the Data Specialist in performing monthly pre-delivery 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.

Field System Relief (periodic)
- Collected LiDAR, pavement, and photolog data in Tennessee, Oklahoma, and Illinois 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.

University of Wisconsin Arboretum
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
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
- Plan and teach classes for children ages 5-6.

Dane County Humane Society
January 2018 - Present
- Animal care volunteer