



Final Reports for Geography 595 (Spring 2020)

Dominick Bernstein — Internship With South Carolina Forestry Commission



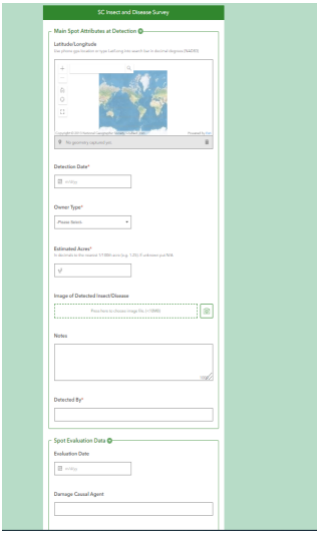
Dominick Bernstein
GEOG 595



SC Decease and Pest Survey

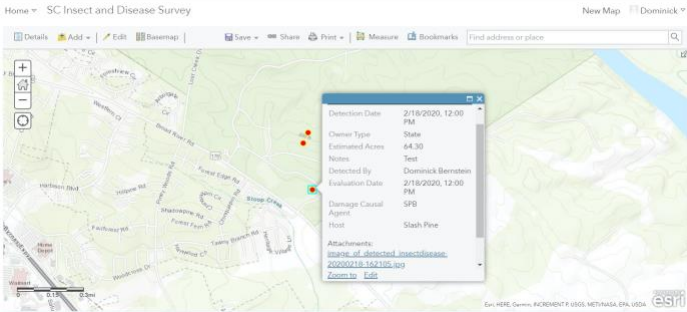
This semester I worked on various projects with the South Carolina Forestry Commission. I was first tasked to build a collection method to track forest deceases and pests. The goal was for foresters in the field to be able to input observations into their smart phone and the data would then go into a database back at the office. This data would then be analyzed to look for trends and patterns in forest health issues. I first made a collection method with survey123 that was easy and efficient to input data. After completion of the survey we went into the field and tested input data points. We then went back to the office to view the test points in the database. After a few tweaks we decided the application was ready to be implemented.

The Collection Method



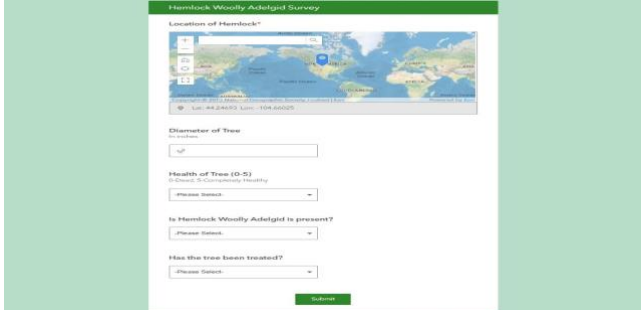
Test Data in Database

This is a WebMap of the test points that we inputted in the field. I have the attribute table for one of these points displayed.



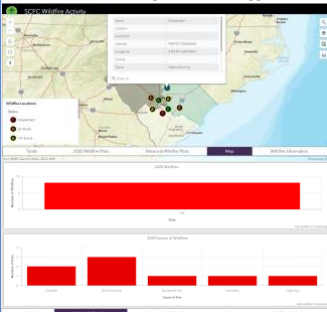
Woolly Adelgid Survey

After the success of the forest decease and pest survey I was tasked to make a similar survey to collect data on the Hemlock Woolly Adelgid. This forest pest is responsible for the destruction of many Hemlock trees in the South Carolina Upstate. These trees are very important to ecosystems in the upstate region. I attended a conference with experts on the Woolly Adelgid in Walhalla, SC where I learned about the pest and how important it was to start to try to exterminate the pest. Soon after this conference I quickly used my original survey as a model and built a tracking method for cases of the Woolly Adelgid. Below I have the form for collecting Woolly Adelgid data.



SC Wildfire Dashboard

Lastly, I was tasked to research a new method for building web applications called experience builder and see if I could improve the functionality of the SCFC's Wildfire Dashboard Application. After lots of trial and error I was able to make an improvement to this application using experience builder. Below I have pictures of the application.



Summary of Internship

This internship was a great experience. I learned many technical skills with new software for me such as Experience Builder and Survey123. I also got better with utilizing the ArcOnline platform. Another plus was the nontechnical skills I got experience using such as collaborating with colleagues, problem solving, working independently and paying attention to detail. Overall this internship was very beneficial, and I learned a lot from it.

Acknowledgements

I would like to formally thank the South Carolina Forestry Commission for giving me the opportunity to gain professional experience. I would like to also thank David Jenkins and Kris Robbins. David and Kris were the ones who hired me, supervised my projects, and were the ones I worked with and collaborated with. They were always helpful, responsive and a pleasure to work with. I truly am thankful for everyone at the South Carolina Forestry Commission.

www.PosterPresentations.com

Kimberley Farrell — Emergency Management Internship Town of Mount Pleasant, SC



GEOG 595: Emergency Management Internship Town of Mount Pleasant, SC

Kimberley Farrell
University of South Carolina, Spring 2020

Overview

- Began work in person in December 2019 at the Town of Mount Pleasant
- Worked in ArcGIS Pro and ArcGIS Online to determine what web apps to implement for the Emergency Management department
- Deployed the chosen apps in ArcGIS Pro so they would be accessible for me to work on remotely
- Worked remotely in Columbia from January 2020 – April 2020, using ArcGIS Online

Acknowledgements

Sincere thanks to:

- Amanda Knight, Emergency Manager
- Frankie Pettit, GIS Manager
- Christiane Farrell, Assistant Town Administrator
- Town of Mount Pleasant Staff
- USC Geography Department



Final Product: Emergency Management Dashboard

- Created in ESRI Story Map Series
- Displays all of the web apps I created, with corresponding tabs for each
- The first four tabs display several publicly released dashboards from ESRI, DHEC, and WHO containing regularly updating COVID-19 data, globally and in South Carolina

Deliverables

- The initial objective was to create 7 web apps to assist the Emergency Management department with planning and operations during an emergency
- These apps are going to be used in the town's emergency operations center (EOC) during an emergency to visually represent important information and updates
- Due to complications from COVID-19 and restrictions on data access, I completed 3 of the web apps and created a dashboard in ESRI Story Map Series to display them side-by-side
- Some of the layers used in the maps were already created by the town's GIS department, others were created by me as needed
- All maps include the town's emergency division zones (northern, central, and southern), pictured in yellow, green, and red
- The additional apps that were not completed are deployed and available in the final dashboard, but need additional data added to them in order for them to be functional



Logistics Planning

- Intended to be used by the Logistics Department
- Includes layers that can be updated in order to keep track of developments in the town
- Includes Living Atlas layers from ESRI, such as USA Weather Watches and Warnings



Situational Awareness

- Intended to be used by the Emergency Management Department
- Includes layers that can be updated in order to keep track of developments in the town
- Includes widgets that make the map searchable by different features and Living Atlas layers from ESRI



Public Information

- Intended to be released for public use
- Includes view-only layers designed for the public
- Includes About widget, written by me, that explains how to use the app
- Includes link to Special Needs Registry that allows the public to sign up for assistance during an emergency in advance

Spring 2020 Internship: Office of Regulatory Staff

Department of Geography, GEOG 595

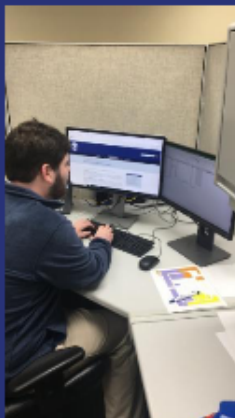
Ben Garriss



Overview

I have the good fortune of working at the Office of Regulatory Staff, or ORS, an agency of the South Carolina state government.

I'm an intern in the Utilities, Rates, and Services division. We deal with the regulation of electric, water, and wastewater utilities. It's our job to represent the public interest in all matters regarding utility regulation.



This opportunity has been incredibly informative for me. As an aspiring lawyer who is currently pursuing research in utility regulation, I have learned much about our state's utility system, and developed many critical skills in the process, including:

- **Technology & Research**
- **Professional Collaboration**
- **Communication & Organization**

I plan to continue this internship into the summer, and I would recommend it to any Geography majors with an interest in utility regulation.

Technology & Research

My internship at ORS has helped me develop skills in technology and research. Thanks to both my experience in GEOG 363, Intro to GIS, and my previous research in utility regulation, one of my biggest projects was creating a GIS of several utility-related features in the Carolinas, all of which I had to locate and then compile from multiple online databases.



Professional Collaboration

ORS is a community, with multiple divisions that span two office floors. A major part of this internship has been learning to work effectively with my colleagues, whether they were full-time employees or fellow interns. This included helping to plan and then attending the Utilities, Rates, and Services retreat, where we traveled to the McKissick Museum for a tour. Being able to succeed in this type of environment has required me to learn to work more effectively with other people, all from varying backgrounds and levels of experience.



Communication & Organization

A crucial skill to succeed at ORS is the ability to communicate. I was frequently asked to provide detailed, coherent summaries of requested information. This required me to succinctly synthesize large quantities of information in short, written form—actual examples below! In addition to communicating information, I also had to organize it, whether it was sorting filing cabinets or digitizing documents.



Testimony



Site Visits



Bids



Rate Cases

GEOG 595 Internship: SC DNR State Climatology Office

Overview

- Started volunteering at the SC State Climatology Office this past August. I worked 10-12 hours a week on Wednesdays and Fridays.
- Primarily a GIS internship. I assisted the office in providing and displaying data from a variety of sources to intergovernmental agencies and other clients.
- Worked both independently and with the staff at the office on projects that relate to past climate records and current climate events.
- Collaborated with fellow office staff Hope Mizell (State Climatologist), Melissa Griffin (Assistant State Climatologist), Mark Malsick (Severe Weather Liaison), Leah Blackwood (Student Intern), Deanna Sanichar (Student Intern)
- Gained professional office experience

Professionalism

Working at the South Carolina State Climatology Office, I have been able to learn and collaborate with professionals in climatology, drought, hydrology, and GIS related fields. During the remote work setting of the COVID19 pandemic, communicating with these professionals through email and video conference calls has been vital. I have also enjoyed learning the process of how a state agency operates in comparison to the private sector. Overall, working with these professionals has enhanced my future career skills, including communication skills, reliability, and work ethic.



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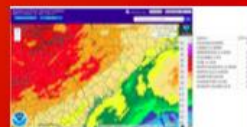
Winter Weather



Event Name	Event Type	Event Date	Event Description
December 10, 2018 - 12/10/18	Heavy Snow, Sleet, or Ice	December 10, 2018 - 12/10/18	Heavy snow, sleet, or ice fell across the state, causing significant damage to property and infrastructure.
December 11, 2018 - 12/11/18	Heavy Snow, Sleet, or Ice	December 11, 2018 - 12/11/18	Heavy snow, sleet, or ice fell across the state, causing significant damage to property and infrastructure.
December 12, 2018 - 12/12/18	Heavy Snow, Sleet, or Ice	December 12, 2018 - 12/12/18	Heavy snow, sleet, or ice fell across the state, causing significant damage to property and infrastructure.

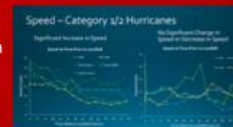
The major project that we worked on this semester was creating a Winter Weather Database for the state of South Carolina. The purpose of this project was to provide information for every winter storm that has affected the state of South Carolina - the precipitation and temperature amounts, affected counties, storm descriptions, the type of weather, and additional fact fields. By using a GitHub application that uses an interactive map for each winter storm event, county and Emergency Managers are able to use past county data to better prepare for these events.

Analyzing Precipitation Trends in South Carolina

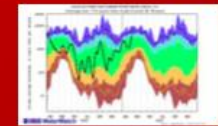
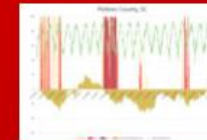


Using climate records to forecast and analyze weather trends were common themes at my internship. To two maps above show the frequency of 1,2,5,10 and <5 year flooding events in the upstate.

Hurricane Analysis



Drought and Streamflow Monitoring



U.S. DROUGHT MONITOR WORKSHOP: FORECASTING, MONITORING AND RESPONDING TO DROUGHT IN THE SOUTHEAST

Skills Acquired/Used

- Collaboration and teamwork in a professional work environment
- Critical thinking techniques needed to complete independent projects in a timely manner

Technical Skills

- ArcMap
- ArcGIS Online
- Microsoft Excel
- Web Page Design
- Data gathering techniques

Clean Cities Workforce Development Program

Spring 2020 Geography 595 Internship with the South Carolina Energy Office, Eva James

INTERNSHIP OVERVIEW

Last fall, I began a Department of Energy funded internship with the South Carolina Energy Office (Energy Office). The internship was through, Clean Cities University Workforce Development Program through Argonne National Lab. The Energy Office is a federally funded office that is housed within the SC Office of Regulatory Staff, a relatively new state agency founded in 2003. ORS works closely with the Public Service Commission to act as an artificial competition to the SC utility monopolies (eg. Dominion, SC Water, etc). Within the Energy Office, I work for the Palmetto Clean Fuels Coalition (PCF). PCF works to increase the use of alternative fuels and advanced vehicle technologies in South Carolina.



Figure 1: The various agencies and organizations that I have been working for this past semester

PCF is part of the Clean Cities program, one of nearly 100 designated coalitions in the United States, but PCF is the only one in South Carolina. The DOE approved the application for PCF's designation in 2003, recognizing the commitment of our stakeholders to building an alternative fuels market in South Carolina as a statewide coalition in 2004. PCF strives to help public and private entities, as well as individuals, lower fuel costs, improve air quality, and reduce petroleum consumption. PCF also promotes idle reduction, fuel economy measures, vehicle miles traveled reductions, and bicycle and pedestrian efforts.

MAIN RESPONSIBILITIES & PROGRAMS

My internship responsibilities with PCF cover a bevy of topics, from data analysis, business plans, event planning, website content, public relations and marketing plans, interfacing with stakeholders, idle reduction campaigns, research, and more. Some of my most time intensive tasks I cover completing deliverables for DOE subtasks and quarterly/annual reporting. This requires a lot of data manipulation and gathering on my end. This has helped improve my Excel and AFLEET skills, but some of the work is relatively mundane—aka typical intern work like sorting files, inputting data, reading reports, responding to emails, and getting the mail.



Figure 2: The Plug In SC Initiative logo, signage, and pavement markings from a PCF stakeholder I coordinated with in Hilton Head, SC

My three large projects I have been an integral part of since last September when I joined the Energy Office team are for the Plug In SC Initiative, the EV Exit Sign Pilot Project, and an AFLEET Analysis Report for the City of Columbia. Plug In SC is intended to ensure that all electric vehicle infrastructure is visible and recognizable by adopting the federal guidelines specified in the Manual on Uniform Traffic Control Devices. It is based off of the South Carolina Electric Vehicle Market Study that aimed to recognize the importance of preparing South Carolina for increased EV sales and interests. PCF conducted this study to address the following issues: an assessment of the current EV infrastructure and policy framework in South Carolina, an analysis of trends and the outlook for the future, actions to prepare South Carolina for future EV development. I work on the Plug In SC Initiative with the intent to contact all EV charging station owners in the state and get them to outfit their chargers with uniform signage. This is important to overcome the barrier of consumers thinking there are "not enough chargers" available.

PROGRAMS (continued)

The EV Exit Signage Pilot Project looks at putting EV signage on exit ramps and off exits to direct highway drivers to available EV chargers along the designated corridors. This has required a lot of coordination with the South Carolina Department of Transportation on my end, and we have several edits going back and forth with them right now. I am in charge of mapping the proposed stations and signage locations, but all of these actions require SCDOT approval. Lastly, I was tasked to assist in a large fleet analysis for the City of Columbia that looks at how they can make their fleet more sustainable. This involved using Argonne National Laboratory's AFLEET software and inputting the vehicle information for the thousands of City of Columbia fleet vehicles. I then analyzed the outputs of the AFLEET results, charting and documenting changes and problematic vehicles the City of Columbia could drop or convert to cleaner fuels. It should be noted that not all of the work I did focused on electric vehicles; a good portion of my work circulates around propane, compressed natural gas, biodiesel, and all other alternative fuel sources.

WHAT I HAVE LEARNED


My favorite part of the job is getting to work for the government, as my previous internships were each with the private sector. Sitting in the ORS and Energy Offices have given me insight into the hurdles, benefits, and confusion surrounding state government work in South Carolina. For example, being an all red state, we are not allowed to talk about climate change or global warming, which is rather tricky when you are promoting clean, sustainable, energy efficient switches in homes, businesses and vehicles across the state. I have also learned there are many areas in which I want to grow within the Energy Office, in learning new skills and tackling different types of projects. For example, this summer I asked to be placed on a GIS team that tracks solar panel use across the state so that I could improve my GIS skillset.



Figure 3: The EV Signage Pilot Project report I have been compiling

Special thanks to Landon Masters, Ben Kessler, and the rest of the SC Energy Office!


Stafford E. Mullin — Carolinas Integrated Sciences & Assessments (CISA)



UNIVERSITY OF
SOUTH CAROLINA

GEOGRAPHY INTERNSHIP: CAROLINAS INTEGRATED SCIENCES & ASSESSMENTS (CISA)

STAFFORD E. MULLIN, RESEARCH ASSISTANT



My participation in the Geography Internship program this semester has supported the work of the Carolinas Integrated Sciences & Assessments (CISA) research team, which is housed in USC's Department of Geography. My role entailed assisting with the design and production of graphics and written material for CISA's marketing and communications materials. This included production of the monthly CoCoRaHS Condition Monitoring Newsletter, the Carolinas Climate Connection Quarterly Newsletter, weekly Listserv posts, and several other documents alluded to in this poster. Additionally, this semester I have been working on a literature review for heat-health work in the state of South Carolina. I gained hands on experience with climate and science communications, graphic design, technical writing, and the literature review process.

CAROLINAS CLIMATE CONNECTION

Every quarter since 2013, CISA has released its Carolinas Climate Connection electronic newsletter. Each newsletter informs stakeholders about publications, upcoming events, relevant climate news, and CISA's ongoing work. This semester I contributed graphics for the CCC using Adobe InDesign. This newsletter highlighted an upcoming conference, a CISA-led Flood Vulnerability Assessment in Beaufort, and described a recent climate health engagement.

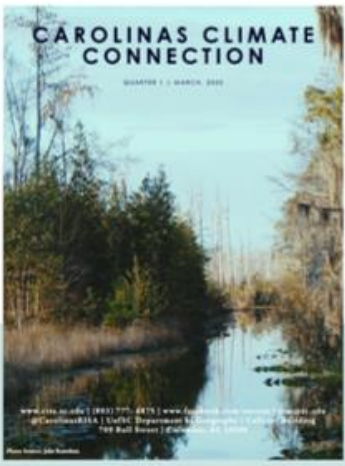


Figure 1: Cover page of Carolinas Climate Connection Newsletter, Quarter 1 2020.

REVIEW OF HEAT ILLNESSES IN SC

In addition to my communications and outreach tasks at CISA, I have been conducting an independent literature review on heat illness research in South Carolina. This has involved identifying individuals who have conducted peer reviewed work on heat related illnesses in the state, and writing a comprehensive literature review about my findings. Ultimately, the purpose of this project is to inform CISA's future research and stakeholder engagement around heat and public health in South Carolina.

Throughout the process, I have found that most of the work in this realm focuses on exertional heat illnesses in football players, Hispanic agricultural workers, and Marine Corps recruits on Parris Island, SC. However these works do not entail other vulnerable populations such as construction workers, the elderly, pregnant women, and those with pre-existing health conditions. In addition to identifying and reviewing the aforementioned research endeavors, my review will evaluate gaps in research, and highlight key researchers and stakeholders who may be useful for future engagement.

COCORAHS CONDITION MONITORING NEWSLETTER

CISA supports the Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) citizen science project in the Carolinas, which is a network of volunteers who submit precipitation measurements and reports detailing how their local area is impacted by weather. Part of this project involves circulating a monthly newsletter to these volunteers. This includes a seasonal article such as holiday climatology, a summary of the Southeast climate report, the regional drought status, and an interview spotlight with one of the citizen science volunteers.

DOCUMENTS AND MATERIALS

CISA 2018-2019 HIGHLIGHTS




Figure 2: CISA Annual Report Highlights for Regional Integrated Sciences & Assessments (RISA) meeting

2019 SOUTH CAROLINA DROUGHT TABLETOP EXERCISE EXECUTIVE SUMMARY




Figure 3: Cover page of Drought Tabletop Exercise Executive Summary

Southern states forgo climate change diction in funding proposals

In recent years, Southern states along the Eastern Seaboard and the Gulf have frequently experienced inundation from extreme weather events, which are notoriously compounded by climate variability. Southern states are acknowledging the need to invest in resiliency efforts and disaster preparedness, however neglect to cite the root causes of these issues in funding proposals. Conservative states like Texas, Louisiana, the Carolinas, and others have recognized the drastic impacts caused by climate variability and have applied for billions of dollars in funding to prepare for these threats. However, climate change terminology is consistently omitted throughout literature.

[Read more](#)


Hurricane Florence damage exacerbated by rising temperatures

A recently published study conducted at Stony Brook University suggests a connection between the damage caused by Hurricane Florence and climate variability. Researchers in the School of Marine and Atmospheric Sciences ran a series of forecast simulations to model the difference between the hurricane's actual conditions and hypothetical cooler temperatures. The results from the study revealed that the warmer temperatures caused the storm to be a 4% wider and 1.6% wider.


The lead researcher of this study articulates that these findings exemplify the heightened severity of storms brought on by rising temperatures. Keep reading to learn more.

[Read more](#)

Deanna Sanichar — SC DNR State Climatology Office



SC State Climatology Office Internship at DNR Deanna Sanichar





Overview

- For the majority of the spring semester I was assigned to work on the Winter Weather Project in order for the team to build a database
- In between that I was working on other tasks using climate data

Maps


- Eri's ArcGIS Online was used to create a SC Preliminary Report for Total Precipitation from February 4-6 2020 shown on the left
- The map on the right shows the Interpolation of Total Precipitation in SC from February 4-6



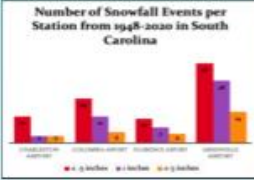
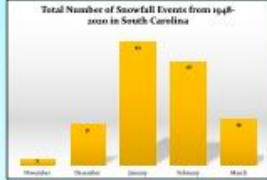
Winter Weather

Event#	Date	Start Time	End Time	Type	Precip Type	Details
10	1/25/18	10:00 AM	11:00 AM	Heavy Snow	Snow	Heavy Snow
11	1/25/18	11:00 AM	12:00 PM	Heavy Snow	Snow	Heavy Snow
12	1/25/18	12:00 PM	1:00 PM	Heavy Snow	Snow	Heavy Snow
13	1/25/18	1:00 PM	2:00 PM	Heavy Snow	Snow	Heavy Snow
14	1/25/18	2:00 PM	3:00 PM	Heavy Snow	Snow	Heavy Snow
15	1/25/18	3:00 PM	4:00 PM	Heavy Snow	Snow	Heavy Snow
16	1/25/18	4:00 PM	5:00 PM	Heavy Snow	Snow	Heavy Snow
17	1/25/18	5:00 PM	6:00 PM	Heavy Snow	Snow	Heavy Snow
18	1/25/18	6:00 PM	7:00 PM	Heavy Snow	Snow	Heavy Snow
19	1/25/18	7:00 PM	8:00 PM	Heavy Snow	Snow	Heavy Snow
20	1/25/18	8:00 PM	9:00 PM	Heavy Snow	Snow	Heavy Snow
21	1/25/18	9:00 PM	10:00 PM	Heavy Snow	Snow	Heavy Snow
22	1/25/18	10:00 PM	11:00 PM	Heavy Snow	Snow	Heavy Snow
23	1/25/18	11:00 PM	12:00 AM	Heavy Snow	Snow	Heavy Snow
24	1/25/18	12:00 AM	1:00 AM	Heavy Snow	Snow	Heavy Snow
25	1/25/18	1:00 AM	2:00 AM	Heavy Snow	Snow	Heavy Snow
26	1/25/18	2:00 AM	3:00 AM	Heavy Snow	Snow	Heavy Snow
27	1/25/18	3:00 AM	4:00 AM	Heavy Snow	Snow	Heavy Snow
28	1/25/18	4:00 AM	5:00 AM	Heavy Snow	Snow	Heavy Snow
29	1/25/18	5:00 AM	6:00 AM	Heavy Snow	Snow	Heavy Snow
30	1/25/18	6:00 AM	7:00 AM	Heavy Snow	Snow	Heavy Snow
31	1/25/18	7:00 AM	8:00 AM	Heavy Snow	Snow	Heavy Snow
32	1/25/18	8:00 AM	9:00 AM	Heavy Snow	Snow	Heavy Snow
33	1/25/18	9:00 AM	10:00 AM	Heavy Snow	Snow	Heavy Snow
34	1/25/18	10:00 AM	11:00 AM	Heavy Snow	Snow	Heavy Snow
35	1/25/18	11:00 AM	12:00 PM	Heavy Snow	Snow	Heavy Snow
36	1/25/18	12:00 PM	1:00 PM	Heavy Snow	Snow	Heavy Snow
37	1/25/18	1:00 PM	2:00 PM	Heavy Snow	Snow	Heavy Snow
38	1/25/18	2:00 PM	3:00 PM	Heavy Snow	Snow	Heavy Snow
39	1/25/18	3:00 PM	4:00 PM	Heavy Snow	Snow	Heavy Snow
40	1/25/18	4:00 PM	5:00 PM	Heavy Snow	Snow	Heavy Snow
41	1/25/18	5:00 PM	6:00 PM	Heavy Snow	Snow	Heavy Snow
42	1/25/18	6:00 PM	7:00 PM	Heavy Snow	Snow	Heavy Snow
43	1/25/18	7:00 PM	8:00 PM	Heavy Snow	Snow	Heavy Snow
44	1/25/18	8:00 PM	9:00 PM	Heavy Snow	Snow	Heavy Snow
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47	1/25/18	11:00 PM	12:00 AM	Heavy Snow	Snow	Heavy Snow
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51	1/25/18	3:00 AM	4:00 AM	Heavy Snow	Snow	Heavy Snow
52	1/25/18	4:00 AM	5:00 AM	Heavy Snow	Snow	Heavy Snow
53	1/25/18	5:00 AM	6:00 AM	Heavy Snow	Snow	Heavy Snow
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70	1/25/18	10:00 PM	11:00 PM	Heavy Snow	Snow	Heavy Snow
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72	1/25/18	12:00 AM	1:00 AM	Heavy Snow	Snow	Heavy Snow
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74	1/25/18	2:00 AM	3:00 AM	Heavy Snow	Snow	Heavy Snow
75	1/25/18	3:00 AM	4:00 AM	Heavy Snow	Snow	Heavy Snow
76	1/25/18	4:00 AM	5:00 AM	Heavy Snow	Snow	Heavy Snow
77	1/25/18	5:00 AM	6:00 AM	Heavy Snow	Snow	Heavy Snow
78	1/25/18	6:00 AM	7:00 AM	Heavy Snow	Snow	Heavy Snow
79	1/25/18	7:00 AM	8:00 AM	Heavy Snow	Snow	Heavy Snow
80	1/25/18	8:00 AM	9:00 AM	Heavy Snow	Snow	Heavy Snow
81	1/25/18	9:00 AM	10:00 AM	Heavy Snow	Snow	Heavy Snow
82	1/25/18	10:00 AM	11:00 AM	Heavy Snow	Snow	Heavy Snow
83	1/25/18	11:00 AM	12:00 PM	Heavy Snow	Snow	Heavy Snow
84	1/25/18	12:00 PM	1:00 PM	Heavy Snow	Snow	Heavy Snow
85	1/25/18	1:00 PM	2:00 PM	Heavy Snow	Snow	Heavy Snow
86	1/25/18	2:00 PM	3:00 PM	Heavy Snow	Snow	Heavy Snow
87	1/25/18	3:00 PM	4:00 PM	Heavy Snow	Snow	Heavy Snow
88	1/25/18	4:00 PM	5:00 PM	Heavy Snow	Snow	Heavy Snow
89	1/25/18	5:00 PM	6:00 PM	Heavy Snow	Snow	Heavy Snow
90	1/25/18	6:00 PM	7:00 PM	Heavy Snow	Snow	Heavy Snow
91	1/25/18	7:00 PM	8:00 PM	Heavy Snow	Snow	Heavy Snow
92	1/25/18	8:00 PM	9:00 PM	Heavy Snow	Snow	Heavy Snow
93	1/25/18	9:00 PM	10:00 PM	Heavy Snow	Snow	Heavy Snow
94	1/25/18	10:00 PM	11:00 PM	Heavy Snow	Snow	Heavy Snow
95	1/25/18	11:00 PM	12:00 AM	Heavy Snow	Snow	Heavy Snow
96	1/25/18	12:00 AM	1:00 AM	Heavy Snow	Snow	Heavy Snow
97	1/25/18	1:00 AM	2:00 AM	Heavy Snow	Snow	Heavy Snow
98	1/25/18	2:00 AM	3:00 AM	Heavy Snow	Snow	Heavy Snow
99	1/25/18	3:00 AM	4:00 AM	Heavy Snow	Snow	Heavy Snow
100	1/25/18	4:00 AM	5:00 AM	Heavy Snow	Snow	Heavy Snow

- Microsoft Excel was used for data collection and processing
- Finn Hagerty and I both used xMAGIS and NOAA Storm Publications to retrieve winter storm events from 1960-Present



Graphics



- Excel was used to display the total number of Snowfall events in SC per month from 1948-2020 and the number of snowfall events per station

Acknowledgements

- I want to thank my supervisor Hope Mizzell and State Climatologist Melissa Griffin and the rest of the team for welcoming me into the climate office and teaching me skills I could not get inside of a classroom. It was an amazing experience that will only benefit me in my professional career

Brock J. Shattuck — South Carolina Institute of Archaeology and Anthropology (SCIAA)



Geographic Information System Analyst South Carolina Institute of Archaeology and Anthropology (SCIAA) Brock J. Shattuck



Overview:

Who?

The South Carolina Institute of Archaeology and Anthropology (SCIAA), founded by the State of South Carolina in 1963, operates as a research institute and a cultural resources management agency.



What?

As a GIS analyst, it was my duty to assist SCIAA archaeologists with site analysis and report writing by constructing maps and illustrations. As a member of the GEOG 595 program, this internship allowed me to gain hands-on work experience and develop/refine marketable job skills.



ArcGIS

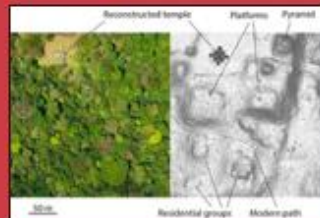
Where?

SCIAA is a department of USC and their headquarters is on campus near the Horseshoe.



Why?

Modern archaeology utilizes GIS in order to visualize, analyze, and record the location and other site details.



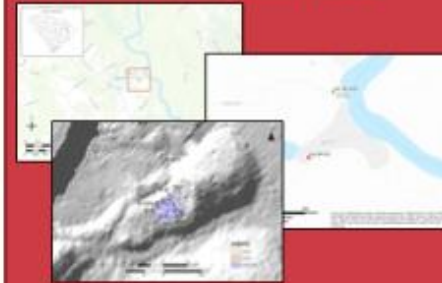
Acknowledgement:

I would like to extend my sincerest thanks to Dr. Steven Smith and the other members of SCIAA for their dedication to historical preservation and for providing me with such an incredible opportunity.

My work:

Site Maps:

My first major project was to create several maps and LiDAR figures in order to visualize a SCIAA archaeological dig. These images were then used in a report given to the Florence County Museum.



Book Publication:

My other major project included updating the map figures of a SCIAA member's dissertation to be used in its republication as a book.

