

Open Geospatial Lab & Remote Workforce Opportunities across rural New York State



MCC students at GIS/SIG

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SUNY Cortland



Colombia project

Project Description

- Increase student success with the development of a virtual open geospatial lab & workforce opportunities through remote internships in GIS across New York State.



MCC's Mapping Club, 1st president Wayne Howard of *Solara Concepts*

- Funding provided by SUNY Innovative Instructional Technology Grant (Tier 3) \$54,200 (2019-2020).

Project Description

- This innovative virtual project will provide strategies for:
 - scaling a virtual open lab
 - developing successful approaches for shared remote desktop
 - peer online tutors
 - virtual internships

...benefitting MCC and SUNY Cortland in year 1
and potentially other organizations and SUNY
institutions in the future

MCC Mapping Corps hosts a #mapathon at Thomas High School!

May 10, 2018 | Khem Kardariya, Monroe Community College

On Wednesday, March 14, 2018, Monroe Community College (MCC) Mapping Corps held the first mapathon for Webster Thomas High School's introductory GIS class in Rochester, New York . MCC Mapping Corps is the first community college in New York and the second in the United States to join [YouthMappers](#).



Get the GIST!



Geospatial Information Systems Certificate

- 24 credit hour GIST Certificate
- For traditional students and professionals, can take just 1 or 2 classes
- GIST courses include:
 - Introductory GIST (can be waived as can others dependent on experience)
 - Remote Sensing
 - Cartography
 - Spatial Analysis
 - Capstone in Geospatial Technology



The GeoTech Consortium of Western New York was funded through the U.S. National Science Foundation (NSF) Office of Advanced Technological Education under Grants Award # 1501076 to Monroe Community College. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



MCC's Get the GIST!



- Can complete in 1 year - <https://www.monroecc.edu/depts/geography/>
- Will be completely online by Fall 2020 pending NSF funding
- Get the GIST @ MCC Video

https://ensemble.itec.suny.edu/Watch/MCC_GetTheGIST

Introduction to GIS

- Online
- Face-face
- 140/year



2013 - 2015 MCC Veteran and Military Student Duty and Service Stations



Introduction

When presented with the opportunity to choose our own topics for our final project, I knew I wanted to find something centered around the Military and Veteran community. The reason I am able to take these classes today is due to my own service in The United States Army. I am grateful for this opportunity I have and am always looking for ways to tie projects back to the Military. When I was informed by the professors that there were maps that have been stored here at MCC in the Veteran Service Office for years that were potentially in danger of being lost or damaged, I jumped on the opportunity to help MCC digitally preserve these maps not only for my final project but for future use of the Veteran Service Office and MCC as well.

Problem Statement

Every Soldier joins the Military for different reasons, one of the more popular reasons is for the opportunity to meet new people and travel the world. MCC has a large number of Military and Veteran Students and Alumni that have attended classes over the years. If you go to the Veterans Lounge in the Library you will find a large map with a bunch of colored thumb tacks all over the place. A different color representing each branch of the Military. The Air Force, Army, Navy, Marines and The Coast Guard. Students would place the pins in the map showing the locations of their duty stations or where they were deployed during their service.

Currently 3 maps exist, one is hanging in the lounge today, the second is from 2013 - 2015 and the oldest map is from 2011 - 2013. This project will digitally preserve the 2013 - 2015 map that was being stored in the Veteran Service Office. The data gathered from the original maps as well as detailed photographs of the pin placements taken during the process will be presented to both departments for future use.

Methodology

Photographs were taken prior to any work being done with the maps. Each pin was individually removed and the location was manually documented. In areas that were extremely popular like Iraq for example specific locations were unfortunately unable to be determined due to the density of pins. In these cases only the country was able to be documented.

Once all locations were recorded with their corresponding service branches the exact longitude and latitude coordinates were researched and recorded using Google. Google docs was also used to manage all of this data and Arc Maps was used to bring this data to life.



2013 - 2015 MCC Veteran and Military Student Service Stations U.S. Army



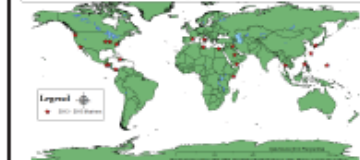
2013 - 2015 MCC Veteran and Military Student Service Stations U.S. Navy



2013 - 2015 MCC Veteran and Military Student Service Stations U.S. Air Force



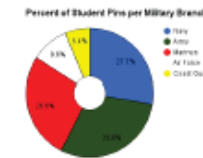
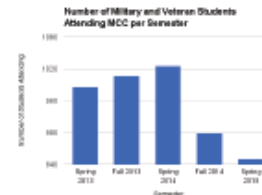
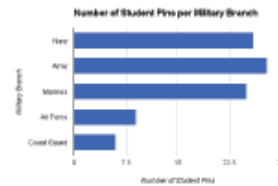
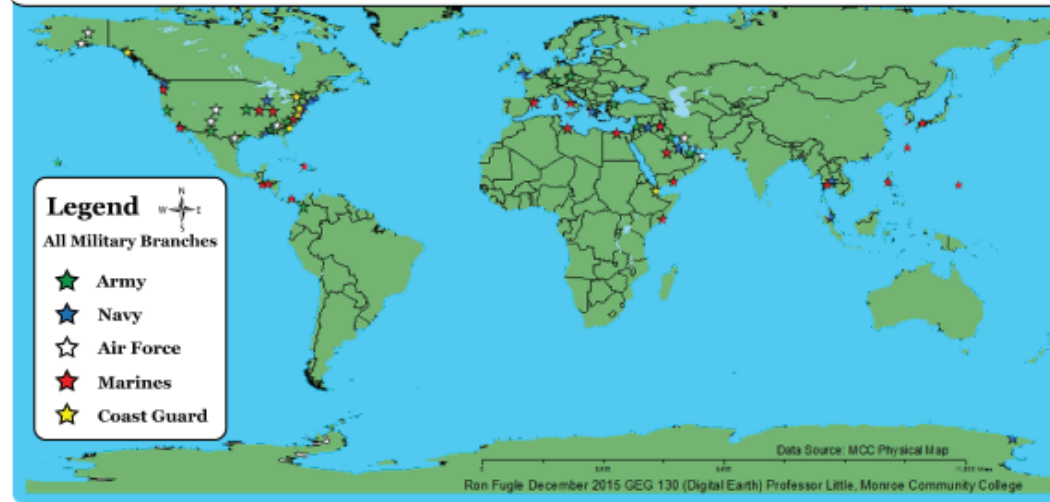
2013 - 2015 MCC Veteran and Military Student Service Stations U.S. Marine



2013 - 2015 MCC Veteran and Military Student Service Stations Coast Guard



2013 - 2015 MCC Veteran and Military Student Service Stations - All Branches



Results

I planned to produce more than 5 maps one for each branch of the Military and at least one with all branches represented. Photographs of the original map and graphs are also included showing relevant information about the MCC Veteran and Military students.

Discussion

I am very pleased with the results of the data collection and documentation process. Extreme care was taken to get as much accurate and detailed information and data from the original source. The original map is completely intact and can be returned to the Veterans Service department if desired.

Conclusion

These maps only begin to show the diversity of the past and present MCC Military and Veteran students. I would like to thank everyone one of them for their service and I hope that the maps and data collected can be used by future students and departments of MCC.

References

The original maps and Military and Veteran student information was provided by the Veteran Service office.



Acknowledgments

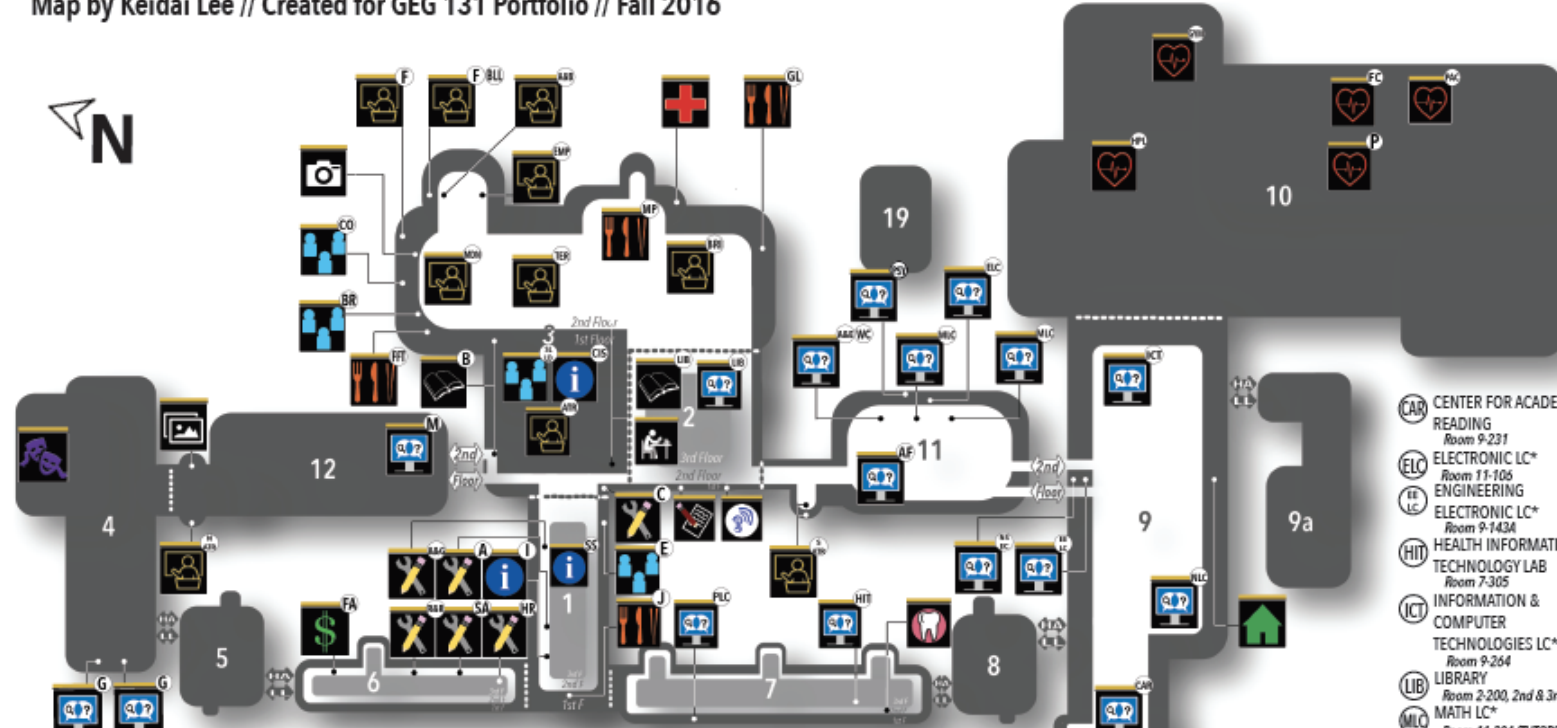
I would like to thank Professor Jonathan Little, Professor Heather Pierce and Lori Bartkovich in the Veterans Service Office for their assistance with this project.

Cartography

THINGS YOU DIDN'T KNOW MCC HAD

Yes, your tuition is paying for these. Here's the ultimate MCC resource survival guide to a successful school year.
Map by Keidai Lee // Created for GEG 131 Portfolio // Fall 2016

Date Sources:
Monroe Community College,
The Nolah Project,
Free locat,
And ms. Hooray!



THOUSANDS OF STUDENTS attend MCC (Rochester, NY) each year from various locations all over the country and the world. However, few students know about the abundance resources the school provides. In fact, part of the reason you pay tuition is to fund these resources!

But don't worry: these resources are all around for your benefit. They're there to help you succeed in school! With this map, be more confident in taking advantage of what you're already paying for.

ACADEMIC ADVISEMENT

- A ADMISSIONS Room 1-211
- ABG ADVISMENT & GRADUATION SERVICES Room 1-231
- C CAREER SERVICES (B GLOBAL EDUCATION AND INTERNATIONAL SERVICES) Room 3-108
- HR HUMAN RESOURCES Room 6-301
- RRS REGISTRATION & RECORDS Room 6-203
- SA STUDENT ACCOUNTS Room 6-201

BOOKS

- B BOOKSTORE Room 3-123 and 2nd Floor
- LIB LIBRARY Room 2-220, 3rd Floor, and 4th Floor (not shown)

CONFERENCE ROOMS & EVENT LOCATIONS

- ATR ATRIUM (CAMPUS CENTER ATRIUM) Large Open Area, MCC Logo on ground
- BLL BAUSH & LOMB LOBBY
- BRI BRIGHTON ROOM
- EMP EMPIRE ROOM Room 3-209
- F FORUM Room 3-130
- MDN MAIN DINING (NORTH)
- A&B MONROE A & B (WARSHOF CONFERENCE CENTER) Room 3-205 & 3-205A
- N ATRIUM NORTH ATRIUM
- S ATRIUM SOUTH ATRIUM
- TER TERRACE

COUNSELING SERVICE & VETERAN SERVICES

- Room 3-103
- FC FITNESS CENTER Room 10-162
- GYM GYMNASIUM Room 10-160
- HP HUMAN PERFORMANCE LAB Room 10-147
- PAC PAC CENTER: TURF & TRACK Room 10-177

FOOD

- FFI FOOD FOR THOUGHT Room 3-191K
- GL GILMAN LOUNGE
- J JAVA'S CAFE MARKET PLACE Room 3-203

MERCER ART GALLERY

Building 12

GREENHOUSE

Room 9-167

HEALTH SERVICES

Room 3-165

INFORMATION

- CIS CAMPUS INFORMATION & SERVICES
- I INFORMATION DESK
- SS STUDENT SERVICES Room 1-300

LEARNING CENTERS: COMPUTER LABS & TUTORS

- AF ACADEMIC FOUNDATIONS LC* Room 11-211
- A&E ACCOUNTING & ECONOMICS LC* Room 11-208

LIBRARY

- Room 2-200, 2nd & 3rd Floor
- MATH LC*
- Room 11-204 (TUTORS ONLY)
- MUSIC LAB Room 11-206
- NATURAL SCIENCE EDUCATION CENTER Room 9-143B
- NURSING LC* Room 9-216
- PHYSICS LC* Room 7-111
- PSYCHOLOGY LC* Room 11-110
- (VAPA) GRAPHICS LC* Room 4-101 and 4-103
- WRITING CENTER Room 11-208

PHOTO ID

Room 3-139A

SOCIAL

- BR BREAK ROOM Room 3-138
- CO CLUBS & ORGANIZATIONS Includes:
 - > Student Government Association,
 - > Campus Activities Board,
 - > Phi Theta Kappa Honor Society,
 - > Monroe Doctrine (Newspaper),
 - > WMCC Production Studio,
 - > and many more!
- E E-LOUNGE Room 1-110
- SL STUDENT LIFE AND LEADERSHIP DEVELOPMENT Room 3-126
- STUDY ROOMS Library (2-200), 3rd & 4th Floor (not pictured)
- TESTING & ASSESSMENT CENTER Room 3-107
- THEATRE

DID YOU KNOW? Signing in to Learning Centers and school computer labs helps the centers receive funding, thus helping it stay open!

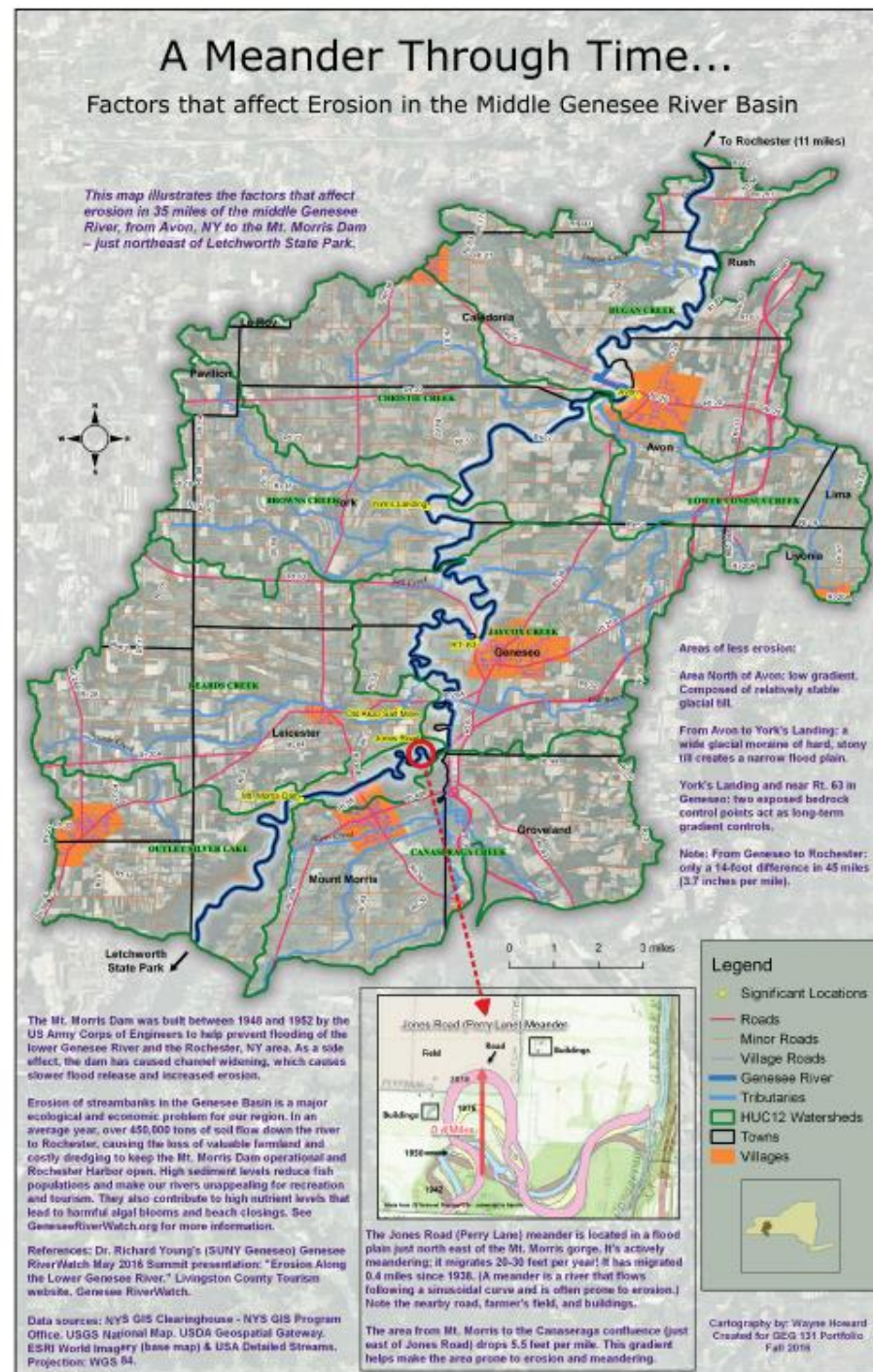
Learning centers are a great way to access computers and tutors to study and do homework.

So, make sure you sign in to Learning Centers. It's not to annoy you. People just want to make sure they're funding their learning centers for the right reasons.

*LC = Learning Center.

Cartography

- Face-face
- Online soon



Romanus vicit Rome Has Conquered



Invasion of Britain - 43AD - Emperor Claudius
 Legions:
 2nd Augusta
 9th Hispana
 14th Gemina
 20th Valeria Victrix
 End in a great triumph for Rome. However only the lower half of Britain was able to become part of the Empire. Claudius marched his army through Gaul to show the might of Rome before departing for Britain.

79-16AD - Germanicus Caesar
 Legions:
 1st Germanica
 5th Alaudae
 20th Valeria Victrix
 21st Eborac
 2nd Augusta
 8th Gemina
 14th Gemina
 16th Gallia
 A campaign that ended in cold and eventually the recovery of the legions that had been destroyed at the Battle of the Teutoburg Forest. Ended in a victory for the Empire and Augustus Caesar strikes the power of Rome.

58AD - Domitius Corbulo
 Legions:
 3rd Gallica
 6th Ferata
 10th Pretensis
 Ended in a military defeat for Rome, but a peace ensued and the battered hard legions marched back to Roman lands.

Tigranocerta
 After capturing the city. From the King of Arminia the romans left a small garrison at the city when the counter attack came the romans was overwhelmed and defeated marking an end to an series of war.

Teutoburg Forest:
 A Betrayal in 9AD lead to the total destruction of the 17th, the 18th, and the 19th legions. The germans killed every one of the romans soldier, man, woman and child. This loss brought great shame to Rome as well as the death of 20000 men.

- Legend**
- Modern Cities
 - ✕ Major Battles
 - Germania
 - Arminia
 - The Britons
 - ★ Rome, The Eternal City
 - Rome Under Imperator Augustus
 - Thrace
 - Dacia
 - Nubia
 - Parthia

0 500 milia passuum

REG 131
 Portfolio
 Fall 2016
 WGS84
www.arcgis.com
www.naturalearthdata.com

Objective 1: Develop GIST Virtual Desktop

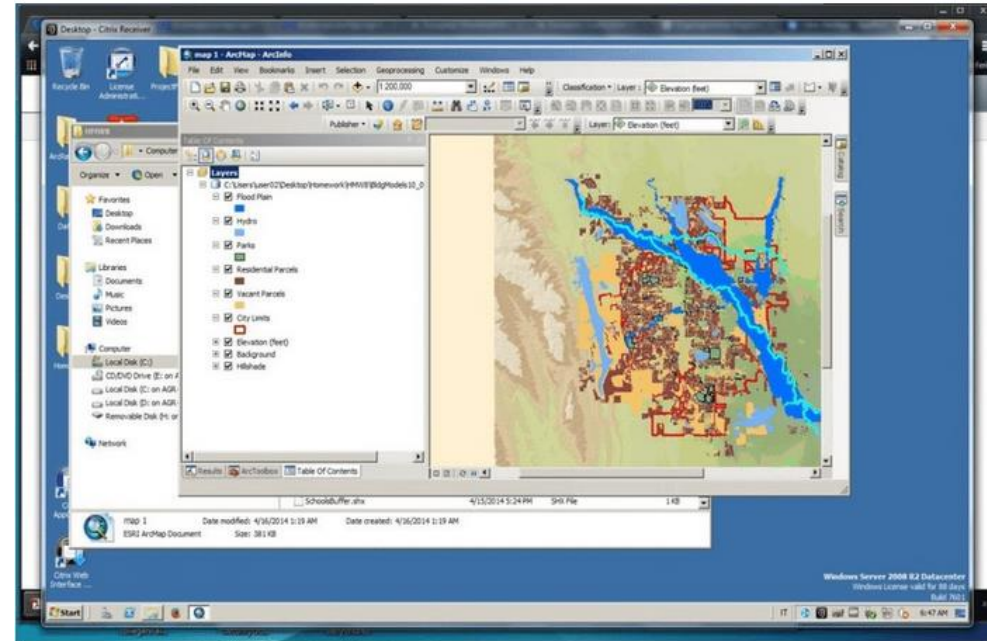
- Servers housed at MCC, 20 VMware licenses

- Why?

- Decrease the digital divide
- Convenience
- insufficient home computer
- software incompatibility

- Status

- Servers purchased and virtual desktop developed at MCC this summer
- Tested this summer at MCC by instructors



Objective 2: Develop Open Geospatial Lab

- Open Geospatial Lab
 - Use Zoom to connect with each online student
 - Pilot in Introductory GIS and Remote Sensing this fall at MCC
 - GIST peer working with individual students this fall in both MCC classes
- Spring 2020
 - Expand to GIST peer at MCC and SUNY Cortland
 - GIST peers will receive training on

Capstone in Geospatial Technology

- Workforce experience
- Final course in GIST Certificate
- Spring semester

The GIST Program

« Go Back

Video

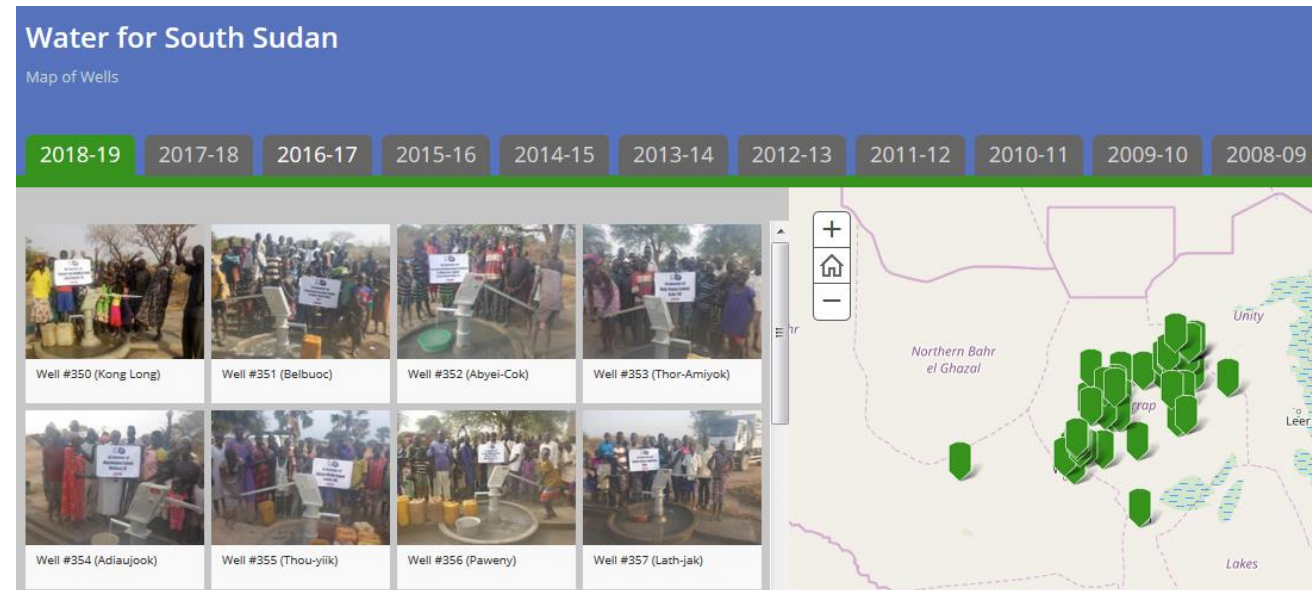
About

Embed



Objective 3: Internships across Upstate New York

- What is it?
 - In Capstone course, workforce experience while working remotely
 - Weekly check-ins, final presentation
- Why?
 - Real task
 - Win-win for both parties
- Virtual Internship Partners
 - River Area of Council Governments
 - Water for South Sudan
 - Genesee Land Trust
 - National GeoTech Center
 - SUNY Albany and the Department of Epidemiology and Biostatistics School of Public Health (NYS Dept of Health)
- Looking for more! If interested, let me know.



Objective 3: Hybrid Virtual Internship in Colombia...

- What is it?
 - Virtual internship with university in Cartagena, Colombia and visit spring 2020
- Why?
 - Cross cultural experiences foster creativity & workplace innovation
 - Enhance student opportunities for employment
- Partners
 - Kazakhstan (GIS & Remote Sensing Center)
 - Landsat/drones analyze wheat
 - Colombia (Tecnológico Comfenalco)
 - Landsat/drones analyze mangroves



MCC's pending* initiatives & Contact

- New National Science Foundation Proposal for \$550,000
- Focus on:
 - GIST Professionals
 - Traditional students
- Partners: GIS/SIG, NYGIS, EagleView, RACOG, virtual intern partners, and many more!
- 3 new courses may be developed focused on geospatial workforce needs as guided by 2019 NYS GIS Survey
- CONTACT: Jonathon Little
jlittle@monroecc.edu (MCC)

* Pending funding from NSF

Another Capstone project this spring with SUNY Cortland....



CONTACT:

Jonathon Little

jlittle@monroecc.edu (MCC)

<https://www.monroecc.edu/academics/majors-programs/stem/geospatial-information-science-and-technology/>