

Biographical Information & Statement:

E-Mail: mjkane1192@gmail.com

Actively enrolled at the University of Wisconsin, Madison for a M.S. degree in Cartography and GIS - Online GIS Development Program. I have a B.A. degree in Geography & Environmental Studies & a GIS Certificate – Graduated Magna Cum Laude & with Departmental Honors Highest Distinction (May of 2018) at the University of Colorado at Colorado Springs. I am eager to explore creative GIS solutions. I believe geospatial computing & GIS web integration is invaluable in today's data driven industry. My favorite GIS components are in geovisualization, risk modeling, & scripting automation. In my personal time, I love to go backpacking (Maroon Bells 4-pass, Escalante/Glen Canyon, San Isabel National Forest, etc.) mountain biking, ski/snowboard, & rock climbing.

Academic Achievements:

B.A. University of Colorado at Colorado Springs, USA, 2018
Major: Geography & Environmental Studies - (3.82 GPA),
Magna Cum Laude & Departmental Honors with Highest Distinction

Certificate: University of Colorado at Colorado Springs, USA, 2018
Geographic Information Science Certificate

Major Course Work:

- Intro to GIS, GES
- Intro to Remote Sensing, GES
- Intro to Geospatial Computing, GES
- Advanced GIS, GES
- Biogeography, GES
- Applied Hydrology, GES
- Honors in Geography, GES
- Geovisualization, GES
- Earth Imagery at Work, ESRI Mooc

Teacher Aid/Grader Course List:

- Intro to GIS, GES - UCCS
- Intro to Remote Sensing, GES - UCCS
- Spatial Database, GES - UCCS
- Advanced GIS, GES - UCCS
- Internet GIS, GES - UCCS
- Digital Earth, GES - UCCS

Awards:

2017	2017 Summer Research Assistantship Grant
2018	Undergraduate Travel Award, University of Colorado at Colorado Springs, offered by the Dean of Letters of Arts & Sciences College
2018	Outstanding Undergraduate Student Award Recipient for the Department of Geography & Environmental Studies
2018	Departmental Honors with Highest Distinction

Academic Service:

- Advisory Committee as Volunteer (Pikes Peak Outdoor Recreation Alliance) – UCCS, 2018
- Education & Volunteer Management Committee (Pikes Peak Outdoor Recreation Alliance) – UCCS, 2018
- Communications Chair for Green Action Fund – UCCS, 2016 -17
- C & R Committee Student Voice (LAS Ambassador) – UCCS, 2017
- LAS Peak Ambassadors (GES Department chair nomination) UCCS 2016-18

Education:

09/2021 – Present

University of Wisconsin, Madison

Cartography and GIS - Online GIS Development Program

08/2015 – 05/2018

B.A. Geography & Environmental Studies, GIS Certificate (2018). Departmental Honors with Highest Distinction

GPA: 3.827

University of Colorado at Colorado Springs, Colorado Springs, CO

08/2012 – 10/2012

Industrial Designs

Metropolitan State University, Denver, CO

08/2011 – 05/2012

Undeclared

Colorado State University, Fort Collins, CO

Employment History:

11/2020 - Present

GIS Technician, Black Hills Energy - Nebraska

- Review & adjust gas distribution assets in GIS database
- Utilize Python scripting for process automation
- Map creation and utility analysis
- Promote safety & integrity of GIS data

5/2019 – 11/2020

GIS Technician, Aerotek (Contract for Black Hills Energy) - Nebraska

- Review & adjust gas distribution assets in GIS database
- Perform GIS tracking of digital solution & paper as-builts
- Collaborate with field on gas distribution logic for GIS web mapping
- Promote safety & integrity of GIS data

09/2018 – 4/2019

Imaging Technician II, Sanborn Map Company - Colorado

- Perform aerial telemetry, orthorectification, & review high-resolution aerial imagery
- Script code to streamline/automate GPS tolerance evaluation recording
- Facilitate drone imagery DEM modeling, mosaics, & orthorectification processes
- Track/update GIS databases with mission/imagery competition

06/2018 – 07/2018

Research Fellowship, Spatialtemporal Thinking, Computing, & Applications at George Mason University (National Science Foundation Funded) REU Summer - Virginia

- Assisted in the development of a Deep Learning (AI) model to identify/predict tropical cyclone movement
- Utilized Python scripting to collect & preprocess data for AI training & experiments
- Performed geo-visualization & big data analysis

09/2017 – 05/2018

**GIS Student Lab Assistant, Geography & Environmental Studies (GES) Department
UCCS – Colorado**

- Assist students to perform & execute GIS lab/course work
- Tutored students on upper division course work (Digital Earth, Remote Sensing, Image Processing, Internet GIS, Spatial Database, Intro to GIS, Advanced GIS)
- Graded upper division lab/course work (Spatial Database, Intro to GIS, Digital Earth)

11/2016 – 05/2018

Building Manager, University Center & Events Services

- Manage several buildings for security & operations
- Manage several teams to ensure proper work flow
- Responsible for A/V technology implementation at UCCS events
- Conduct/confirm proper setup of floor/room layouts for hundreds of UCCS events throughout the semester

7/2016 – 11/2016

Events Assistant, University Center & Events Services

- Coordinate between several teams to ensure proper event flow/production
- Responsible for A/V technology implementation at UCCS events
- Conduct/confirm proper setup of floor/room layouts for hundreds of UCCS events throughout the semester
- Work close with clients in a professional manner

1/2018 – 05/2018

Volunteer, Pikes Peak Outdoor Recreation Alliance

- Assist in web content development
- Write blog reports & press releases
- GIS integration projects

02/2015 – 11/2016

Assistant, Colorado Canine Orthopedics

- Assist surgeons & techs during surgery
- Prep & drape in over 6 patients for surgery daily
- Ensure proper workflow between surgeries, prep, sterilization, & other procedures
- Perform proper sterilization methods to surgical tools & packs

07/2014 – 02/2015

Laborer/Assistant Tech., Abacus Technology Corporation (Government Contractor with the United Air Force Academy 10th Communication Squadron)

- Led trouble shooting & testing for data/phone communications at four host sites
- Implemented thousands of copper & fiber optic drops
- Trained on new innovations (copper, fiber, & locating technologies)

Major Academic Projects:

- **Honors in Geography – Undergraduate Thesis:** Field research was conducted in the summer of 2017 that resulted in an undergraduate honors thesis. Funding provided by the LAS College at UCCS: 2017 Summer Research Assistantship Grant. The research evaluated the impact of ecosystem ecology within North Cheyenne Canyon in Colorado Springs, CO. The research investigated defoliation impact of moths on coniferous trees using Thiessen polygon, spline interpolation, & linear regression models. Results indicated that defoliation was negatively correlated to proximity of a water source & an indirect apparent interaction was found resulting in higher defoliation occurring with the presence of white fir conifers. Wildfire & erosion potential was the main concern of the City of Colorado Springs, so they conducted an aerial spraying of the canyon with a biological pesticide.

GIS Student Lab Assistant – Teacher Aid Project Assistance: Mountain Metro ridership data, UCCS student usage over several different time periods, was analyzed & represented using ArcGIS & Adobe Illustrator to the Office of Sustainability. The Office of Sustainability was interested in the results, so they could promote the continuation of a free-pass trial period to enrolled UCCS students.

- **Research Methods Comp Studies - Colorado Springs Undergraduate Research Forum Poster Presentation:** A qualitative analysis on the growth & changes of map geovisualization in modern times with the introduction to recent innovations in GIS platform applications/software/online production. This study compared past data visualization works with modern data visuals, & it integrated three interviews with professors at UCCS that are experts in the field of GIS & data-visual rhetoric. Results paralleled with that of similar studies. A static situation of maintaining old visual concepts & structures was still in place, but interactive abilities has allowed for user generated hypotheses, insights, & presentation in a greater level. I presented the study at the Colorado Springs Undergraduate Research Forum (CSURF) in 2016 at the Air Force Academy.

SOFTWARE

Microsoft Office (Microsoft PowerPoint, Word, Excel, Access) • Python & R scripting • ESRI (ArcGIS/Pro) • Locus View • Global Mapper • Inpho • SimActive • Adobe Photoshop • Ultramap • Tableau • Panoply • Terrset • GeoDa • Google Earth • OneNote • Notepad ++ • Power BI • SOMVIS • UltraMap • Global Mapper

Membership & Affiliation:

Association of American Geographers (2018) • Geo-Club member (2016-18) • National Society of Leadership & Success inducted honors member (2016-18) • Gamma Theta Upsilon Honors Society member (2017-18) • “A-Team” Leadership

Speaker Series (departmental nomination through student employment), UCCS, (2017-18)

Personal Interests/Hobbies:

Biogeography • Ecology • Risk Modelling • Geovisualization • Scripting • Mountain Biking • Backpacking • Skiing/Snowboarding/Backcountry Skiing • Rock Climbing • Longboarding • Lacrosse • Basketball • Seinfeld