

James Luther “Luke” Chamberlain IV

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GIS & CARTOGRAPHY PORTFOLIO

EDUCATION

UNIVERSITY OF WISCONSIN

Madison, WI

M.S. in Cartography and GIS (Current)

- **Relevant Coursework:**

- Intro to Cartography, Intro to Geocomputing, Geospatial Big-Data

COLORADO STATE UNIVERSITY

Fort Collins, CO

M.S. in Human Dimensions of Natural Resources (Graduated: December, 2020)

- **GPA:** 4.0/4.0

- **Master’s Thesis:** “Ecosystem Service Valuation for Wildfire Mitigation Prioritization Decision-Making in Colorado”

- **Relevant Coursework:**

- **Concepts in GIS** – A project-oriented GIS analysis course using ArcGIS 10.x.
 - Team project leader – Front Range, CO Bald Eagle habitat characterization study using remote sensing and GIS analyses of Bird Conservancy of the Rockies citizen science data.
- **GIS Applications in Natural Resource Management** – Applied SQL and Python to natural resources GIS projects using ArcGIS Pro.
- **Programming for GIS** – Python coding using ArcPy and ArcGIS Pro.
- **Spatial Statistical Modeling for Natural Resources** – Spatial statistical analysis and modeling of natural resources data using R.

CORNELL UNIVERSITY

Ithaca, NY

B.S. in Science of Natural Environmental Systems – Academic Focus: Biology (Graduated: May, 2014)

- **GPA:** 3.3/4.0

EXPERIENCE

Center for Health Disparities Research – UW Madison

Madison, WI

Student GIS Manager: 12(semester)-30(summer) hrs/wk

Apr 2022 – Present

- Primary duties: geocoding addresses and managing GIS data for Neighborhood Atlas Project
- Developing publication quality maps for Neighborhood Atlas Project, and other miscellaneous maps.

Center for Environmental Management on Military Lands – Colorado State University

Fort Collins, CO

GIS Technician: Full-time

Mar 2021 – Nov 2021

- Primary duties: scanning, georeferencing, digitizing features from archaeological reports in Western U.S. BLM land (1960s-present)
- Responsible for managing geodatabases containing >10,000 features
- Expert at using ArcGIS Pro & ArcCatalog daily.

Geospatial Centroid – Colorado State University

Fort Collins, CO

Graduate Student Employee: 15-20 hrs/wk

Aug 2019 – Mar 2021

- **On-campus GIS help center:**

- Worked independently to complete GIS & remote sensing analyses and projects for researchers and outside agencies.
- Project workflow management: experienced selecting the most appropriate course of action for executing geospatial work, and leading project completion for a small team.
- Projects resulted in development of cartographic products and/or technical reports.
- Experienced with geospatial and cartographic principles and techniques.

- Developing web and digital map products using ArcGIS Online.
 - Geodatabase management, data quality assurance, maintaining metadata standards for spatial data using ESRI software.
 - Strong data management skills – manipulating and editing vector, raster, tabular data – in all ESRI and Microsoft Office software.
- Project team lead: land classification and vegetation impact report for Capitol Reef National Park.
 - Used satellite imagery to determine the impact that increased visitation had on vegetation around popular trails at Capitol Reef National Park.
 - Experienced with geo-referencing and heads-up digitizing.
 - Developed strong knowledge of supervised and unsupervised remote sensing raster classification workflows in ArcGIS 10.x and ArcGIS Pro.
 - Final deliverables: technical report and associated geodatabase to NPS staff at Capitol Reef.
- Project team lead: data hosting and website creation for Colorado watershed datasets.
 - Easily able to navigate both front end and back end data storage and hosting features of ArcGIS Online and ArcGIS HUB open data platforms.
 - Link to finished website: <https://geospatialcentroid-csurams.hub.arcgis.com/>
- Project team member: Colorado Brightfields project.
 - Gathered spatial data layers and conducted spatial analyses to identify priority land parcels for renewable energy development in Colorado.
 - Delivered data dictionary report to project funders detailing all data layers used for analyses (~200 layers). Experienced using Adobe InDesign for publishing reports.
 - Final deliverables: beta version of parcel identifier web application and data dictionary.

Human Dimensions of Natural Resources – Colorado State University Fort Collins, CO
Graduate Research Assistant May 2019 – June 2020

- Return on investment assessment for Denver Water, co-author:
 - Conducted initial literature review to gather pre-existing scientific information on quantifying watershed values including recreation, tourism, drinking water protection, housing, infrastructure, timber, carbon sequestration, and wildlife.
 - Calculated monetary impact of different modeled future wildfire scenarios on full range of watershed values – included geospatial raster analyses.
 - Final deliverable: technical report for Denver Water.
- Public participatory GIS research study, primary author:
 - Designed, implemented, conducted analysis, and wrote scientific article for PPGIS survey. Distributed to ~2,000 households in the Big Thompson Watershed, CO.
 - Extensively familiar with Maptionnaire online mapping survey platform.
 - Link to online survey: <https://app.maptionnaire.com/en/6481/>
 - Data analysis included projecting tabular data to a map and overlaying vector and raster data to analyze spatial trends.
 - Research resulted in submission for publication to *Ecosystem Services* academic journal.
 - Advised Big Thompson Watershed Coalition (Loveland, CO) on using similar web-based survey methods to incorporate community input into future river management.
 - Link to BTWC project: <https://bigthompson.co/project/big-thompson-river-envisioning-project/>

Human Dimensions of Natural Resources Department - CSU Fort Collins, CO
Graduate Teaching Assistant Aug 2018 – May 2019

- NRRT 330 – Social Aspects of Natural Resource Management:

- Assisted professor in developing lessons for 90-person undergraduate course in both the Fall 2018 and Spring 2019 semesters.
- Course topics spanned social and behavioral science theory in the context of natural resources and outdoor recreation management.

PUBLICATIONS AND PRESENTATIONS

- Primary Author: *"Capturing Socio-Cultural Ecosystem Service Values and Their Wildfire Threats Through Participatory Mapping in Colorado."*
 - Submitted for review to Ecosystem Services journal – July, 2022.
- Co-Author: *"A Cost-Benefit Analysis of Denver's Forests to Faucets Program, 2011-2019."*
 - Internal technical report to Denver Water – August, 2020.
- Oral presentation and technical report: *"Impact of Increased Visitation on Trails and Surrounding Vegetation: Capitol Reef National Park, UT."*
 - Technical report to National Park Service staff – March, 2020.
 - Oral presentation at Geospatial Centroid event – March, 2020.
- Oral and poster presentations on PPGIS research: *"Public Perceptions of Ecosystem Services – A Spatial Approach."*
 - Front Range Student Ecology Symposium – February, 2020.
 - Colorado State University GIS Day – November, 2019.
- Oral and poster presentations on GIS/remote sensing assessment of Colorado Bald Eagle nesting habitats: *"Bald Eagle Habitat Suitability Assessment, Colorado Front Range."*
 - Warner College of Natural Resources poster event – April, 2019.

ADDITIONAL SKILLS

- ESRI GIS software including ArcGIS Pro, ArcMap 10.x, ArcGIS Online, Model Builder, ArcGIS HUB, Survey 123, Python.
- Detail-minded data manager: maintaining metadata standards and organization of large datasets, geodatabases, and online data libraries.
- Exceptional writer and presenter: academic papers, technical reports, poster presentations, slideshows, oral presentations.
- 10+ years of experience using Microsoft Office software – Word, PowerPoint, Excel.
- Creative thinker, team-oriented worker, experienced geospatial problem-solver.

INTERESTS & HOBBIES

Tabletop Gaming | Game Design | Biking | Skiing | Visual Art

REFERENCES – More available upon request

Academic

- Kelly Jones – Master's thesis advisor (Sep, 2018 – Dec, 2020).
 - Associate Professor Human Dimensions of Natural Resources – Colorado State University
 - Email: kelly.jones@colostate.edu
 - Phone: (970) 491-6591
- Scott Beck – Master's thesis committee member (Mar, 2019 – Nov, 2020).
 - Email: sbeck@farmland.org
 - Phone: (919) 270-3253

Professional

- Will Buckingham – Supervisor at Center for Health Disparities Research (current)
 - Email: wrbuckin@wisc.edu
- Valerie Milmore – Supervisor at Center for Environmental Management on Military Lands (Mar, 2021 – Nov, 2021).
 - Email: Valerie.milmore@colostate.edu
- Melina Laituri – Supervisor at Geospatial Centroid (Aug, 2019 – Mar, 2021).
 - Director: Geospatial Centroid – Colorado State University
 - Email: melinda.laituri@colostate.edu
 - Phone: (970) 449-2235