



INFO

(512) 694-2714

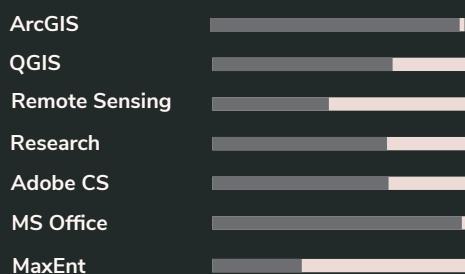
james.rainesii@ucdenver.edu

<http://jamesraines.com/>

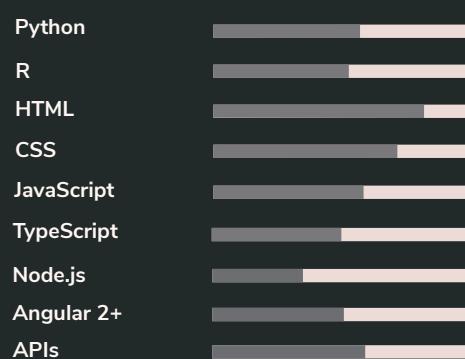
<https://github.com/lorax521>

<https://www.linkedin.com/in/james-raines-95aa8157/>

PROFESSIONAL SKILLS



PROGRAMMING



WEB GIS



RDBMS



JAMES RAINES

GEOGRAPHER



EXPERIENCE

12/17 - present

GIS AND WEB DEVELOPER

National Park Service - Resource Information Division

Developed Web GIS applications as part of a DevOps team including a Web map builder and park asset CMS. Provided development support for geospatial services, NPGallery, facilities and transportation, and other applications. Used JavaScript, TypeScript, SQL, and APIs.

01/17 - 01/18

GRADUATE RESEARCHER

University of Colorado Denver | USGS with CESU agreement

Received a \$30,000 grant to study the effects of land use/cover change in monarch butterfly migration habitat on population decline. Collaborated internationally performing GIS analysis, species distribution modeling, literature reviews, and writing technical reports.

11/16 - 05/17

TEACHING ASSISTANT & GEOSPATIAL TUTOR

University of Colorado Denver

Courses taught:

GIS (GEOG 4080/5080); Cartography (GEOG 4081/5081)

Developed course material, administered lectures, and tutoring.

09/16 - 04/17

TRANSPORTATION & MOBILITY INTERN

City and County of Denver

Performed GIS services to inform multi-year plans for Denveright and Vision Zero. Developed python scripts to automate workflow of large datasets (200,000+ features).

07/15 - 06/16

PROGRAM COORDINATOR

Central Texas Food Bank

Managed the Mobile Pantry Distribution over 21 counties.

Used GIS to inform a 3-year program expansion plan.

Developed policy, cultivated agency partnerships, and supervised trainings and distributions



EDUCATION

In progress

MASTER OF GEOGRAPHY AND GEOSPATIAL SCIENCE

University of Colorado Denver; 4.0 GPA

Gamma Theta Upsilon - International Geography Honor Society

CLAS Dean's Advisory Council - GES Graduate Representative

STEM accredited Professional Science Master's degree (PSM)

In progress

MASTER'S GISci CERTIFICATE

University of Colorado Denver; 4.0 GPA

18 credit hours including: GIS, remote sensing, spatial statistics, Web GIS, GIS programming, cartography, and RDBMS

2015

BACHELOR OF GEOGRAPHY

University of Texas at Austin

Minor in government



RESEARCH

In progress

EFFECTIVENESS OF NATURAL PROTECTED AREAS IN MEXICO

University of Colorado Denver

Thesis: Do federally decreed national protected areas mitigate forest cover loss and forest fragmentation? Developed models using Python and R.

In progress

MONARCH BUTTERFLY MIGRATION HABITAT

University of Colorado Denver | USGS

How has monarch butterfly migration habitat contributed to population change from 2000 to 2010? Land use/land cover study and species distribution modeling in R.

In progress

FOREST FRAGMENTATION IN COSTA RICA

University of Colorado Denver

Generation of a national assessment of forest fragmentation using the morphological spatial pattern analysis algorithm.

2017

Web and Mobile Cartography

University of Colorado Denver

Research for a cartography textbook on contemporary practices and theory in web and mobile cartography.

2015

RESEARCH ASSISTANT

University of Texas at Austin

Researched conservation methods for the Andean Cloud Forest of Ayabaca, Peru. Additionally, analyzed the efficacy of the Payments for Ecosystem Services program for the Osa Peninsula of Costa Rica



PROJECTS

2018 - present

MASTER'S CAPSTONE - SOLAR ANALYSIS

University of Colorado Denver | City and County of Denver

Partnered with the City and County of Denver to provide GIS and LIDAR analysis for the PV solar capacity on city buildings.

2017 - present

FOSS4G WEBSITE EDITOR

University of Colorado Denver

Managed content for the university's FOSS4G website.

URL: <https://geospatial.ucdenver.edu/foss4g/>

2017

WEB MAP DEVELOPMENT

Environmental Center at Fort Lewis

Developed a dynamic open-source web map application to promote gleaning and local food initiatives.

<https://lorax521.github.io/DurangoGleaningApp/index.html>

2017

REMOTE SENSING ANALYSIS

In response to Missionary Ridge Fire of 2003

Analyzed the recovery areas after the Missionary Ridge Fire of 2003. Performed through open-source programming.

2013 - 2016

FOUNDER/OWNER/CFO

Austin Audio Cooperative

Founded an audio/visual event production company.

Managed events with 1000+ people. Strategized company direction, built partnerships, and designed accounting and inventory applications.