JACOB PETERSON

My career has given me experience applying a broad range of statistical methodologies and honed me into expert in R programming. Academic research has prepared me to think critically, learn new skills independently and quickly, managage complex projects, and collaborate within teams to acheive results. I enjoy exploring datasets, solving the puzzles that accompany analysis, and transforming raw data into the solutions used to answer important questions.

I am currently looking for a data science position that allows me to solve pragmatic problems while leveraging my skills in data management and statistical analysis.

💼 PROFESSIONAL EXPERIENCE

2019

Graduate Teaching/Research Assistant
Purdue University   📍 West Lafayette, IN
- Led design and development of a spatially explicit agent-based model
- Was the lead author on two grant application proposals
- Managed collaborations between universites, state agencies, and private stakeholder organizations
- Continued graduate coursework focusing in statistics and data science

2019 | 2016

Student Consultant
Oklahoma State University and Purdue University
- Drew on my expertise in R programming, statistics, and GIS to assist other students, post docs, and research staff within my graduate schools
- Consulting topics included: basic R programming, data cleaning, data management, statistical and spatial analysis
- Led help sessions one on one and within small working groups
- Provided detailed presentations about new techniques to lab research groups and graduate level classes

2018 | 2016

Graduate Research Assistant
Oklahoma State University   📍 Stillwater, OK
- Experience applying mixed-effect regression models and a variety of spatial movement and resource selection models
- Designed a spatial classification function in R to characterize different animal behaviors given GPS movement data of an individual
- Developed an R package to increase reproducibility of my research methods
- Located, obtained, prepared, and managed large datasets from multiple state and federal agencies, private companies, and universities
- Lead author on two academic manuscripts and multiple research summary reports

2015 | 2012

Human Dimensions Technician
Colorado Parks and Wildlife   📍 Fort Collins, CO
- Assisted a variety of interdisciplinary projects in social science and natural resources
- Created summary reports for survey results and conducted literature reviews
- Designed and managed Access and ESRI geodatabases

2015

GIS & Human Dimensions Independent Study
Colorado Parks and Wildlife & Colorado State University   📍 Fort Collins, CO
- Began development of a method to spatially predict human attitudes and tolerance using survey response data
- Experience using SQL to interface with a database and Python & R to script a spatially-explicit model

2015

NSF – Research Experience for Undergraduates Fellow
University of Kansas   📍 Lawrence, KS
- Data-mined a fish stomach database using SQL and R to establish a food web for the North Atlantic Ocean and assess correlation between these interspecific relationships with meta-population synchrony

CONTACT
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SOFTWARE SKILLS
Highly experienced with
- Ⓡ R [5+ years]
- 🌐 ArcGIS [8+ Years]
- 🐧 Linux/Bash [4+ years]
- Ⓜ️ R Markdown [1+ Years]
- 🐙 Github [4+ Years]
- 🖥 HPC Systems [4+ Years]

Experience with
- 🐍 Python [3+ Years]
- SQL [5+ Years]
- Ⓠ QGIS [2+ Years]
- 🚩 Netlogo [6+ Months]
- HTML/CSS [4+ Months]

TECHNICAL SKILLS
- Data Management
- Data Cleaning/Unit Testing
- Data Visualization
- Data Mining
- Statistical Analysis
  - GLMs/GLMMs
  - Categorical Analysis
  - Multivariate Analysis
  - Machine Learning
  - Bayesian Statistics
- Spatial Analysis
  - Geospatial Operations
  - Interpolation
  - Space Use Models
  - Movement Models

PROFESSIONAL SKILLS
- Critical thinking
- Independent learning and researching
- Project management
- Working effectively in a team
- Collaboration with external agencies and stakeholders
- Prioritize stakeholder needs in development
- Oral and written communication adapted to target audiences

2014

Predictive Model for Archeological Sites Affected by Flood Damage

SIM Minor Capstone Project (CSU)   📍 Fort Collins, CO
- Designed a predictive model to locate prehistoric and historic cultural archeological sites using spatial predictors
- Developed using Python scripts and ArcGIS

2016 | 2013

Field Technician – Wildlife Capture and Handling

Colorado Parks and Wildlife and Missouri Department of Conservation
- Used VHF and Iridium GPS telemetry to monitor wildlife movement patterns, behavior, and survivial
- Experience working alone and as a small team in remote field locations
- Required adaptability and attention to detail to accomplish research goals when working in rough terrain and subject to variable weather patterns
- Collecting field data provides a greater appreciation of freely available datasets and increased my diligence in error checking data with unit tests

🎓 EDUCATION

Present | 2020

M.Sc., Applied Statistics and Analytics

University of Kansas Medical Center   📍 Overland Park, KS
- Emphasis: Data Science

2018 | 2016

M.Sc., Natural Resources Ecology and Management

Oklahoma State University   📍 Stillwater, OK

2015 | 2012

B.S., Fish, Wildlife and Conservation Biology

Colorado State University   📍 Fort Collins, CO
- Minor: Spatial Information Management (SIM)

🖥 TEACHING EXPERIENCE

2019

Vertebrate Population Dynamics

Purdue Department of Forestry and Natural Resources   📍 West Lafayette, IN
- Teaching assistant for senior-level undergraduate course
- Covered introduction to statistics and life tables in R, distance sampling using Program Distance and mark-recapture analysis with Program MARK
- Experience teaching quantitative topics to a diverse non-expert audience

2019

Big Data in Forest Research – Guest Lecture

Purdue Department of Forestry and Natural Resources   📍 West Lafayette, IN
- Guest lecture on using R as a GIS for a graduate course
- Covered an introduction to the `tidyverse`, the differences between packages `sp` and `sf`, using package `raster`, and mapping with `ggplot` and `tmap`