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# Joel Silverman

## Data Scientist

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## SUMMARY STATEMENT

Innately curious. Analytical. Dependable. Seeking a position using machine learning and exploratory data analysis to solve real-world problems in a collaborative environment. Domain knowledge in biology,, remote sensing,, and public service.

## TECHNICAL SKILLS

- Proficient in Python (SciKitLearn, Pandas, Numpy). Skilled in statistical models for prediction and inference. Experienced in data management using MS Excel and Access. Familiar with mapping and geo-spatial analysis in ArcGIS.
- Interdisciplinary teams, problem solving, and project management.

## PROFESSIONAL EXPERIENCE

### Data Scientist in Training - *General Assembly, Washington D.C. (Remote)*

November 2021 - March 2022

- Covered statistical foundations for a variety of modeling techniques and gained experience implementing models in Python programming language..
- Project 1: California SAT/ACT Performance & Participation / Exploratory Data Analysis
  - Cleaned, analyzed, and created data visualizations to find patterns
- Project 2: Predicting Prices & High Value "Fixes" / Regression Models
  - Predicted home sale prices with the best model explaining 86% of the variability in price. Also identified home features that related to higher sale price.
- Project 3: Subreddit Classification / Natural Language Processing & Classifiers
  - Classified language in 2 Reddit.com subreddits with 90% accuracy. Tools utilized include: Pushshift API, Count Vectorizer, TF-IDF, Logistic and XX Classifiers.

### Resource Specialist - *US Forest Service, Pinecrest, CA*

September 2014 - November 2021

- Established an online permit system for visitors, saving approx. 1000+ staff hours annually.
- Maintained, analyzed, and reported visitor information from a database of 30,000+ records.
- Supervised 4 to 8 staff each year.
- Wrote successful requests for funds, and completed all grant projects on time and within budget.
- Helped coordinate management actions across 1/4 million acres of public land.

### Resource Specialist - *MROSD, Los Altos, CA*

July 2010 - July 2014

- Managed work projects, across 15+ park units in the South Bay area.

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- Developed several biological studies and reviewed 150+ research proposals.
  - *Skills: Project management, study design, project planning, internal / external coordination, and ArcGIS mapping.*

### **Biological Scientist - *National Park Service, Springdale, UT***

May 2008 - July 2010

- Lead the collection, analysis, and reporting of data for Fire Management at Zion and Bryce Canyon National Park.
- Coordinated with universities and other agencies on several large-scale research projects.
- *Skills: Data collection, team leadership, building team cohesion, analysis, reporting, planning, coordinating, presenting findings to non-technical audiences.*

## **EDUCATION**

### **Data Science Intensive Certificate - *General Assembly, Washington D.C (Remote)***

- Completion Expected: March 2022

### **Master's of Science (Forest Sciences) - *Colorado State University, Fort Collins, CO***

- Thesis: modeled species distributions using remote-sensing data. Major: Forest Sciences.
- Spatial Statistics, Statistics (Data Design and Analysis), GIS Analysis.

### **Bachelor's of Arts - *The Evergreen State College, Olympia, WA***

- Human & Cultural Geography, Study Abroad (Central America).
- Plant Biology, Natural Resource Management.

## **SELECTED AWARDS**

**USFS & NPS Certificates of Appreciation**

**NASA Graduate Fellowship**

**Colorado State University Educational Event Award**

## **PERSONAL INTERESTS**

Completed two trail marathons

Amateur outdoor photographer

Backpacker