Andy Pickering, PhD

Data Scientist

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Data Science Blog
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TECHNICAL SKILLS

Python: Pandas, NumPy, SciPy Stats, MatPlotLib, Seaborn, Scikit-Learn, Keras

R: RStudio, dplyr, ggplot2, plotly, leaflet, Shiny, R-Markdown

Data science: Statistics, machine learning, regression models, decision trees, random forest

Other : SQL, Git, Github, SVN, VScode, Docker, JIRA, AWS, Agile

PROJECTS

Predicting JeffCo Open Space Parking | *Python, Pandas, Matplotlib, SciKit-Learn*

- Analyzed LotSpot parking data and weather data to identify usage trends and predict the number of spaces available at popular trailheads.
- Built a random-forest regression model with R^2 of 0.64. The most important predictors were temperature and UV index.

Journalists Under Fire | *Python, Pandas, Matplotlib, Folium*

- Analyzed journalist deaths and imprisonments since 1992 to identify global trends in threats to journalists and the free press.
- Found majority of deaths were local journalists covering politics and war during armed conflicts, while imprisonments were largely related to coverage of political and human rights issues.

PROFESSIONAL EXPERIENCE

Data Scientist & Data Analytics Supervisor **-** ICF *Sep* 2017 - Oct 2019

- Analyzed customers' home energy usage with R and SQL to create home energy reports and drive messaging for energy efficiency and rebate programs for power utilities.
- Modeled customers' home heating and cooling energy usage, allowing delivery of more relevant offers and recommendations for reducing energy usage and upgrading equipment.
- Analyzed smart thermostat and weather data to provide customized recommendations for saving energy.

Postdoctoral Research Associate **-** Oregon State University 2015 - 2017

- Developed data-processing pipeline and analysis for turbulence measurements made by novel instruments during standard shipboard sampling, with the goal of greatly increasing our understanding of turbulent mixing across the global oceans.
- Analyzed data from autonomous research vessel operating in coastal and open-ocean waters.

EDUCATION

Galvanize Data Science Immersive | Denver, CO Mar-June 2020

12-Week intensive Python-based curriculum covering best practices in machine learning, statistical analysis, natural language processing, and data visualization..

MS & PhD Physical Oceanography | *University of Washington*, Seattle WA 2008 - Dec 2014

PhD thesis: *Investigation of the Spatial and Temporal Structure of Internal Waves*

MS thesis: *Near-Inertial Waves Observed During the Internal Waves Across the Pacific Experiment*

BS Physics & Geology | *Northeastern University*, Boston MA 2003 - June 2008