Charles Ramey

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DATA SCIENTIST

I am a data scientist with a passion and aptitude for identifying trends and patterns in data. My past experience includes 3 years working with clients and regulators to protect public health and the environment as part of a team of civil and environmental engineers. From driving multi-million dollar projects to becoming a go-to technical leader, I have a knack for understanding processes and using data to improve them.

TECHNICAL & INTERPERSONAL SKILLS

Data Science Skills: Python, Pandas, Numpy, Supervised & Unsupervised Machine Learning, Jupyter, Matplotlib, SQL, Natural Language Processing, Git, HTML/CSS, Excel

Interpersonal skills: Oral Presentation, Technical Writing, Team Coordination, Organized Documentation, Adaptability, Growth Mindset, Conflict Management

DATA SCIENCE PROJECTS

NHL Player Salary Predictor (GitHub repo)

- Developed a Streamlit web application that allows users to predict NHL player salary value.
- Utilized Selenium WebDriver to scrape player stats and contract data from multiple websites and created a linear regression model to predict NHL player salary with an R-squared value of up to 80%.

Subreddit Classification with Pushshift API and NLP (GitHub repo)

- Created a tool for targeted advertisement of affordable hockey equipment on Reddit using natural language processing in conjunction with a stack of classification models including logarithmic regression and various tree and ensemble methods.
- Collected 200,000 Reddit submissions from r/hockey and r/hockeyplayers using Reddit's Pushshift API and accurately classified submissions by subreddit with 95% accuracy.

Ames Housing Price Prediction Model (GitHub repo)

- Designed a housing sale price prediction model to assist real estate agents and home sellers choose a strategy for setting the asking price of a home.
- Predicted housing sale prices within \$30,000 of true value using a combination of Ridge, Lasso, and ElasticNet regression models.

EXPERIENCE

Hoyle, Tanner & Associates - Staff Environmental Engineer

Burlington, VT, 09/2021 - 02/2023

- Oversaw on-site operations for a 6-week pilot study as part of a \$30-million treatment facility upgrade.
- Attained proficiency in ArcGIS Pro through self-guided learning, establishing myself as the go-to resource for project planning and asset management tasks utilizing the software.
- Developed and maintained dynamic master spreadsheets in Excel, streamlining data management and analysis for improved efficiency.

Aqua Engineering - Environmental Engineer

Denver, CO, 06/2019 - 06/2020

- Designed a \$750,000 treatment facility expansion and partnered with equipment vendors to facilitate project implementation.
- Consulted with clients to identify and control sources of contamination to meet permit compliance.

Mines Undergraduate Research Fellowship (MURF) - Research Assistant

Golden, CO, 01/2018 - 05/2019

Remote. Graduated: 05/2023

- Assisted a PhD candidate investigating the use of hybrid statistical-machine learning forecasting to predict wastewater treatment failure and improve process control.
- Maintained process and data collection equipment to ensure the continued success of research efforts.

EDUCATION

General Assembly, Data Science Immersive

Colorado School of Mines, Master of Science - Civil & Environmental Engineering Golden, CO, Graduated: 05/2021

Colorado School of Mines, Bachelor of Science - Mechanical Engineering Golden, CO, Graduated: 05/2019