Michelle Griffith /// Data Scientist

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I am a data scientist with a background in physics and research. I am proficient in python, data analytics, statistical analysis, and machine learning models. My experiences working with cleantech startups, research, and as a business owner have focused my drive to contribute to socially and environmentally minded organizations in order to achieve their goals, by harnessing the power of data to extract insights to tell a meaningful story that can lead to actionable steps forward.

SKILLS

Technical: SQL (postgres), Python (pandas, scikit-learn, Beautiful Soup, Jupyter, spacy, nltk, matplotlib, seaborn, Plotly), Microsoft Products, Experimental Design, Salesforce CRM Software, Statistical Analysis

PROFESSIONAL EXPERIENCE

Thinkful, *Remote*, 2020-2021 /// Data Science Training

Selected Projects:

***Well-Widget*: Identifying Negativity in Online Content**

- Cleaned and Processed dataset with tweets and sentiment rating to build a model that will scan content of social media pages and characterize individual comments & tweets as positive or negative.
- Based on the percentage of negative content, different programming will be displayed in a sidebar that a user installs to their browser, that provides positive content or mental health & crisis resources, in order to address mental health issues related to screen time and social media usage especially among teens and young people.

***Spotify Clustering*: Clustering and Classifying Songs from Spotify**

- Performed and Tuned Clustering Algorithm to help identify similarities between Spotify tracks in order to create a primitive model for music recommendation to users.
- Explored & visualized differences between musical characteristics between genres beforehand to determine possible clusters, and afterwards to characterize the contents of each cluster.

***Studying SCOTUS*: Using Supervised Learning Models to Predict a Supreme Court Justice's Vote**

- Deployed and optimized the initial version of a model that can predict how judges will vote as a tool to be used for those appointing judges to predict how they will vote based on the appointers interests.
- Performed extensive initial data analysis to clearly understand differences between judges and issues areas in order to determine whether the model could actually be a useful tool.

***Pulse of the Nation*: How Income & Age Affect Political Opinions, Experimental Design & Statistical Analysis**

- Examined whether age & income affects how survey participants answered political survey questions in order to inform campaign organizers how to interact with different demographics based on the issue at hand.
- Tested null hypothesis with statistical significance tests (t-tests and kruskal-wallis for non-parametric distributions) to determine that within the surveyed population that there is no difference between age and income.

Independent Business Owner, 2015-19 /// *Athlete, Outdoor Guide, Wellness Professional*

- Worked as a private yoga teacher, rock climbing guide & instructor, & semi-professional athlete, organizing manager & rigger for outdoor adventure documentaries and large events
- Marketed and lead multi-day off-grid yoga retreats for groups, and managed large-scale outdoor festivals/events

National Renewable Energy Laboratory, *Golden, CO,* 2013 /// *Photovoltaics Researcher*

- Conducted research to optimize Cadmium Telluride (CdTe) thin film solar cells
- Operated sputtering systems, and characterized the results on final device performance
- Presented insight from research into optimal parameters for the Cadmium Sulfide layer of a CdTe solar cell

National Renewable Energy Laboratory, *Golden, CO,* 2011-12 /// *Business Intern*

- Intern for the Industry Growth Forum, an annual business pitch competition hosted by NREL for cleantech startup companies to raise funding and access resources from NREL
- Communicated directly with and counseled cleantech startup companies and entrepreneurs in different stages during their application process to present their business pitch at the Industry Growth Forum

EDUCATION: **Colorado School of Mines,** *Golden, CO* / Bachelor of Science, Engineering Physics, 2014, *Cum Laude*