

Han Yang

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Github: github.com/hanyang2019 | Personal Page: hanyang2019.github.io/

Summary

Data analyst equipped to run analysis and visualization with skills in Python, JavaScript and databases. Enjoys challenges, providing detailed analysis of large datasets and proposing insights to solve related problems. Analytical skills, strength in collaborating with people of diverse backgrounds, and effective communication abilities with team members make a valuable addition to any team.

Technical Skills

Programming: VBA Script, Python, R, SAS, STATA

Databases: SQL, MongoDB

Visualization: HTML, CSS, JavaScript, Tableau

Projects

Prediction of Off-Shore Rig Utilization Rate | Github: [bit.ly/2TCYxmW](https://github.com/hyangken/2TCYxmW) | Tableau Public: [tabsoft.co/366KwAm](https://public.tableau.com/viz/1366KwAm)

- Identified factors affecting off-shore rig utilization rate and incorporated machine learning models to predict it.
- Ran XGBoost and neural networks (LSTM) models in Python to predict off-shore rig utilization rate.
- Computed and plotted SHAP values of established models to visualize feature importance.
- Validated models by comparing predicted vs actual in tableau.

Analysis of Austin B-Cycle | Github: [bit.ly/367Sh9g](https://github.com/hyangken/367Sh9g) | Heroku: [bit.ly/2ND1uA0](https://heroku.com/apps/2ND1uA0)

- Created an app to visualize the distribution of bike stations, the utilization of bikes and the composition of rider membership of Austin B-cycle program.
- Acquired data through APIs, used Pandas to clean and combine datasets and stored in an SQLite database.
- Built a heat map of multiple layers using D3.js and Leaflet.js to visualize bike stations based on popularity.
- Led the team to design and launch an HTML webpage in which interactive visualizations obtain data from an SQLite database through Flask and SQLAlchemy.

Mission to Mars | Github: https://github.com/hanyang2019/Mission_to_Mars

- Built a web application that displays information scraped from multiple websites in a single HTML page.
- Completed web scraping using BeautifulSoup, Pandas, and Splinter.
- Used MongoDB with Flask templating to render scraped information to be displayed in an HTML page via Jinja Templates.

Weather API | Github: github.com/hanyang2019/Weather_API | Web Page: hanyang2019.github.io/Weather_API/

- Analyzed the relationship of weather of 500+ cities with respect to equator and displayed the results in a visualization dashboard website.
- Created a list of geo-coordinates of 500+ cities using citipy Python library and retrieved associated weather information through the OpenWeatherMap API.
- Ran statistical analysis, made visualizations with Matplotlib, displayed results in an HTML website using CSS and Bootstrap.

Experience

Lab Technician

2017 – Present

SpectraCell Laboratories

Houston, TX

Collaborate with coworkers to prepare and analyze specimen and effectively communicate with client services to ensure results delivery.

- Created Python programs to consolidate files in preparation for sample analysis and automate QC process of LPP test to facilitate work flow which significantly reduced processing time by 60%.
- Participated in a data-mining project to identify the association between nutrient deficiency and hypertension responsible for data querying (SQL), data cleaning (Python) and modeling (R).
- Assisted developing a machine learning program (Python) to process Micro-Nutrient Test data.

Lab Technician

2014 – 2016

Auspicious Laboratory

Houston, TX

Led a team of 3 to perform clinical toxicology urine testing and assumed the role of working manager during the absence of lab manager.

Teaching Assistant

2011 – 2012

University of Texas School of Public Health

Houston, TX

Lectured on hypothesis testing and statistical modeling and tutored students in the application of statistical software (STATA, R, SAS).

Research Assistant

2007 – 2010

University of Missouri-Columbia

Houston, TX

Independently worked on a multi-disciplinary project of phytoremediation and solved research problems with minimal supervision.

- The 2nd Place of The Excellent Poster Presentation for the poster entitled "Plant species-specific phyto-degradation of TNT and RDX contaminants in soil" presented to the 2008 Research Symposium at Lincoln University of Missouri

Education

Data Analytics Certificate: Rice University, Houston, TX

Biostatistics M.S.: University of Texas Health Science Center at Houston, Houston, TX

Environmental Science M.S.: University of Columbia-Missouri, Columbia, MO

Biotechnology B.S.: Southwest University, Chongqing, China