HUAN HE

Data Analyst
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SUMMARY

Analytical and results-driven professional with expertise in statistics, data science, and complex research. Skilled in synthesizing data-driven insights to solve problems, optimize processes, and drive growth. Proven ability to manage multiple projects, lead teams, and deliver impactful solutions through statistical modeling, machine learning, and data visualization.

PROFESSIONAL SKILLS

- Tools: MySQL, Git, MS Excel, Tableau.
- Programming Languages: Python, R, MATLAB, C, Linux Shell Script.
- Technical Skills: Data Analysis, Data Mining, Data Visualization, Exploratory Data Analysis, Extract Transform Load, Statistical Modeling, Predictive Modeling, Machine Learning, Cloud Computing (AWS), REST APIs.
- Soft Skills: Critical Thinking, Problem Solving, Time Management, Organizational, Collaboration, Communication.

EDUCATION

University of British Columbia, Canada – Master of Data Science Sep 2024 – Current
Nanjing University, China – Master of Meteorology Sep 2018 – Jun 2021
Nanjing University, China – Bachelor of Atmospheric Sciences Sep 2014 – Jun 2018

WORK EXPERIENCE

Electric Power Research Institute of Guangdong Power GRID, China – *Research Engineer* Jul 2021 – Jul 2024

- Directed an extreme weather monitoring and alerting system combined with accurate numerical weather forecast, improving disaster predicting accuracy by 20%.
- Developed a weather data quality assessment model using Python, increasing data qualification rate over 30%.
- Collaborated to propose a two-stage stochastic programming framework under typhoon disaster for the first time, reducing the post-event expected recourse operation cost by 15%, boasting 20 publications.

Jiangsu Environmental protection Industry Technology Institute, China – *Data Analyst Intern* May 2020 – Jul 2020

- Designed and implemented automated Python program correcting analysis compared with observations, boosting data processing speed by 30% and improving data accuracy by 20%.
- Analyzed and visualized time series and spatial distribution of various meteorological elements, improving forecasting accuracy by 15%, leading to more data-driven decision-making.
- Conducted testing and data validation on target tables from source database using SQL queries, reducing processing time by 30% and enhancing data pipeline efficiency.

ACADEMIC PROJECTS

Billionaires Dashboard Visualization Feb 2025 – Mar 2025

- Created an interactive dashboard using Python Dash enabling stakeholders to explore billionaires' landscape effortlessly via complex data visualizations, including bar charts, scatter plots, choropleth maps and pie charts.
- Enabled multi-dimensional data filtering and drill-down analysis, increasing user engagement and exploration depth by 30%.
- Reduced the time required for stakeholders to retrieve insights by 40%, providing valuable insights on wealth accumulation patterns and spatial trends.

Wine Quality Distribution Prediction Feb 2025 – Mar 2025

- Developed predictive models using Generalized Linear Models (GLM), Generalized Additive Models (GAM), Gaussian Mixture Models (GMM) and Random Forest, achieving high accuracy of over 85% for classification tasks.
- Conducted a comprehensive feature importance analysis, identifying key predictors of wine quality and providing actionable insights for winemakers.
- Applied the Shapiro-Wilk test to evaluate the normality of features and conducted the Mann-Whitney U test, revealing statistically significant differences between red and white wines in most features.