

Hao Wu

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PROFESSIONAL SUMMARY

Data Scientist with over 8 years of experience delivering innovative solutions in the **energy sector**, specializing in building advanced analytical tools and applications. Proficient in **R**, **Python**, and **JavaScript**, with a strong track record of enhancing user experience and reducing data processing time. Demonstrates expertise in developing custom models for **forecasting** and scenario analysis, contributing to significant client success and operational efficiency.

WORK EXPERIENCE

DATA SCIENTIST

Argus Media

Jan 2022 – Present

- Building a **Generative AI** Shiny application that searches proprietary market articles published within Argus Media.
 - Asynchronously calling **APIs** powered by **Python** backend
 - Continuous app improvement backed by **custom user analytics**
- Successfully delivered £250k web-based solution for Kuwait Petroleum International (KPI), a major European transport fuel supplier, reducing data processing time for clients
 - Building **custom Shiny inputs** using **JavaScript** to enhance user experience
 - Manage user permission and data storage with **MySQL** and **AWS S3**
- Building production ready Shiny dashboards for commodity traders using **{golem}** framework
 - Building interface for **Scenario analysis** where users can experiment with the impact of forecast prices after shocking the market drivers
 - Building interface where user can **build custom models** to forecast commodity prices
- Contributing to the data preparation pipeline that feeds into the models **forecasting commodity prices and distribution**

SENIOR DATA SCIENCE SPECIALIST

Ricardo Energy & Environment

Jan 2020 – Jan 2022

- Building R Shiny applications integrated with SQL database for data checking and ratification
- Building **bespoke R packages** to simplify the process of data analysis
- Using regression and tree based statistical models to predict air quality trends
- Building **Python CLI** tool to scrape and compare data from XML files

DATA SCIENCE SPECIALIST

Ricardo Energy & Environment

Jan 2017 – Jan 2020

- **Mentoring** staff on doing data analysis in R
- **Dynamic reporting, data visualisation** and building tools for analysing air quality data

SKILLS

Languages Level

R Expert

HTML, CSS Experienced

JavaScript Skillful

Python Skillful

EDUCATION

Doctor of Philosophy – School of Chemistry

University of Edinburgh

2013 – 2017

- Understanding the spatial-temporal variability of urban -air pollution
- Dispersion and statistical modelling of urban air pollution
- Conducting air quality measurements using stationary and portable air quality monitors.

Bachelor of Science (1st Class) – Environmental and Sustainable Chemistry

University of Edinburgh

2011 – 2013

Bachelor of Science – Applied Chemistry

South China University of Technology

2009 – 2011