

Hao Wu | Senior Data Scientist

Ricardo Energy & Environment

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Education

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| | University of Edinburgh, UK | |
| <i>Ph.D.</i> | | <i>2017</i> |
| ○ 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. | | |
| | University of Edinburgh, UK | |
| <i>BSc (1st Class)</i> | | <i>2013</i> |
| ○ Environmental and Sustainable Chemistry | | |
| | South China University of Technology, China | |
| <i>BSc</i> | | <i>2013</i> |
| ○ Applied Chemistry | | |

Employment

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| | Ricardo Energy & Environment | |
| <i>Senior Data Scientist</i> | | <i>Jan 2020 - Present</i> |
| ○ Dynamic reporting, data visualisation and building tools for analysing air quality data | | |
| ○ Building R Shiny applications integrated with SQL database for data checking | | |
| ○ Building bespoke R packages to simplify the process of data analysis | | |
| ○ Using regression and tree based statistical model to predict air quality trends | | |
| | Ricardo Energy & Environment | |
| <i>Data Scientist</i> | | <i>Apr 2017 - Jan 2020</i> |

Techinal Skills

Programming Languages.....

Proficient: R.

Intermediate: MySQL.

Basic: CSS, HTML, Bash, Python.

Software.....

Advanced: RStudio, ADMS-Urban, MS Word.

Intermediate: ArcGIS, FME, MS Excel, Sketchup, Fusion 360.

Teaching Experience

2019: Teaching assistant at Ricardo openair and R data analysis training course. London, UK

2019: Teaching assistant at Ricardo openair and R data analysis training course. Huelva, Spain

2013 - 2016: Second Year Physical Chemistry Lab Demonstrator. University of Edinburgh, UK

2013 - 2016: Second Year Environmental Chemistry Lab Demonstrator. University of Edinburgh, UK

Honours and Awards

2016: Reviewer of Environmental Pollution Journal.

2013 - 2016: Edinburgh Global Research Scholarship.

2013: Undergraduate Research Project Prize.

Conferences and Training Courses

2016: Oral presentation at International Society of Exposure Science. Utrecht, Netherlands

2016: Oral presentation at Annual UK Review Meeting on Outdoor and Indoor Air Pollution Research. Solihull, UK

2014, 2015: Poster presentation at Annual UK Review Meeting on Outdoor and Indoor Air Pollution Research. Solihull, UK

2015: FME Desktop Introductory and Advanced Training. Edinburgh, UK

2014: ACCENT Plus Summer School on Drivers, Feedbacks and Impacts in Air Quality and Climate Change. Urbino, Italy

2014: ADMS-Urban and EMIT Trainings. Cambridge, UK

Publications

1. Lin, C., Masey, N., Wu, H., Jackson, M., Carruthers, D. J., Reis, S., Doherty, R. M., Beverland, I., & Heal, M. R. (2017). Practical field calibration of portable monitors for mobile measurements of multiple air pollutants. *Atmosphere*, 8(12), na.character. <https://doi.org/10.3390/atmos8120231>
2. Kenagy, H. S., Lin, C., Wu, H., & Heal, M. R. (2016). Greater nitrogen dioxide concentrations at child versus adult breathing heights close to urban main road kerbside. *Air Quality, Atmosphere & Health*, 9(6), 589–595. <https://doi.org/10.1007/s11869-015-0370-3>
3. Wu, H., Reis, S., Lin, C., & Heal, M. R. (2017). Effect of monitoring network design on land use regression models for estimating residential NO₂ concentration. *Atmospheric Environment*, 149(na.character), 24–33. <https://doi.org/10.1016/j.atmosenv.2016.11.014>
4. Wu, H., Reis, S., Lin, C., Beverland, I. J., & Heal, M. R. (2015). Identifying drivers for the intra-urban spatial variability of airborne particulate matter components and their interrelationships. *Atmospheric Environment*, 112(na.character), 306–316. <https://doi.org/10.1016/j.atmosenv.2015.04.059>
5. Steinle, S., Reis, S., Sabel, C. E., Semple, S., Twigg, M. M., Braban, C. F., Leeson, S. R.,

Heal, M. R., Harrison, D., Lin, C., & Wu, H. (2015). Personal exposure monitoring of PM2.5 in indoor and outdoor microenvironments. *Science of The Total Environment*, 508(.na.character), 383–394. <https://doi.org/10.1016/j.scitotenv.2014.12.003>