

**Job Description: Data Scientist – HDR UK**

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| **College/School:** | Swansea University Medical School |
| **Job Title:** | Data Scientist |
| **Department/Subject:** | Medical School |
| **Salary:** | £33,882 to £37,999 per annum together with USS pension benefits |
| **Hours of work:** | 35 hours per week |
| **Contract:** | Fixed term for 2 years. |
| **Location:** | This position will be based at the Singleton campus. |

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| **Introduction** | To deliver its sustainable top 30 ambition Swansea University needs a professional services workforce with the differentiated skills necessary to ensure that it can deliver excellence through efficient and effective systems and processes that harness innovations in technology.  We are seeking a data scientist to actively contribute to ground breaking research using environmental data held within SAIL.  The post is for a role contributing to research support activities, health research projects, and the shared development of tools and infrastructure to facilitate research. The appointee will be a member of HDR UK Wales, an interdisciplinary team applying cutting-edge methods to further research in this field, so that maximum benefit may be derived from this data to improve population health and well-being. |
| **Background information** | The purpose of the role is to support Swansea University’s role within Health Data Research UK, specifically the Research Driver Programme focussed upon Inflammation and Immunity led by Professor Gwyneth Davies. https://www.swansea.ac.uk/staff/gwyneth.davies/  The Inflammation and Immunity Research Driver Programme will explore inflammation and immunity as general underpinning mechanisms, initially focusing on highly prevalent respiratory and allergic diseases. These conditions can be exacerbated by acute inflammatory episodes due to viral infections and environmental factors such as pollution, tobacco, pollen, weather, drugs, foods, stinging insects, etc.  This program aims to improve understanding and management of common respiratory and allergic diseases. It will track disease patterns, identify and address variations in care, and develop new tools for risk prediction using diverse data sources like genetics and wearables. The program will then evaluate these tools through large-scale trials and share its findings with the data science and global respiratory research communities. |
| **Main Purpose of Post** | 1. Contribute to research projects within the HDR UK project group, including:  * Contributing to team planning and management * Research design * Data preparation * Statistical analysis * Writing results for publication  1. Contribute to SAIL support activities, including provisioning data to projects, reviewing project outputs, responding to researcher queries about SAIL, and helping researchers develop project ideas. 2. Contribute to the development of new software tools and methods for working with data. |
| **General Duties** | 1. Pro-actively contribute to and conduct research, including gather, prepare and analyse data, generate original ideas and present results. 2. Prepare reports, draft patents and papers describing the results of the research, both confidential and for publication. 3. Be self-motivated, apply and use their initiative, aiming to determine suitable ways to tackle challenges and seeking guidance when needed 4. Interact positively and professionally with other collaborators and partners within the College and elsewhere in the University and beyond as appropriate such as in industry/commerce, public organisations, hospitals and academia. 5. Contribute to College organisational matters in order to help it run smoothly and to help raise its external research profile. 6. Keep informed of developments in the field in technical, specific and general terms and their wider implication for the discipline area, commercial applications and the knowledge economy. 7. When requested act as a representative or member of committees, using the opportunity to extend their own professional experience. 8. Demonstrate and evidence own professional development, identifying development needs with reference to the Vitae Researcher Development Framework, particularly with regard to probation, PDR and participation in training events. 9. Maintain and enhance links with the professional institutions and other related bodies. 10. Observe best-practice protocols in maintenance and retention of research records as indicated by HEI and Research Councils records management guidance. This includes ensuring project log-book records are deposited with the University/Principal Investigator on completion of the work. 11. To fully engage with the University’s Performance Enabling and Welsh language policies 12. To promote equality and diversity in working practices and to maintain positive working relationships. 13. To lead on the continual improvement of health and safety performance through a good understanding of the risk profile and the development of a positive health and safety culture. 14. Any other duties as directed by the Head of College / Department or their nominated representative expected within the grade definition. 15. To ensure that risk management is an integral part of any decision making process, by ensuring compliance with the University’s Risk Management Policy |
| **Professional Services Values** | All Professional Services areas at Swansea University operate to a defined set of Core Values - [Professional Services Values](https://www.swansea.ac.uk/the-university/values/professional-services-values/) and it is an expectation that everyone is able to demonstrate a commitment to these values from the point of application through to the day to day delivery of their roles. Commitment to our values at Swansea University supports us in promoting equality and valuing diversity to utilise all the talent that we have.  **We are Professional** We take pride in applying our knowledge, skills, creativity, integrity and judgement to deliver innovative, effective, efficient services and solutions of excellent quality  **We Work Together**          We take pride in working in a proactive, collaborative environment of equality, trust, respect, co-operation and challenge to deliver services that strive to exceed the needs and expectations of customers.  **We Care** We take responsibility for listening, understanding and responding flexibly to our students, colleagues, external partners and the public so that every contact they have with us is a personalised and positive experience.  Commitment to our values at Swansea University supports us in promoting equality and valuing diversity to utilise all the talent that we have. |
| **Person Specification** | **Essential Criteria:**  **Values:**   * Demonstrable evidence of taking pride in delivering professional services and solutions * Ability to work together in an environment of equality, trust and respect to deliver services that strive to exceed the needs and expectations of customers * Demonstrable evidence of providing a caring approach to all of your customers ensuring a personalised and positive experience * Demonstrable knowledge and expertise in the following:   - advanced data analysis techniques  - statistical programming (such as R, Python, and Stata)  - working with routine linked health datasets  - use of SQL to interrogate and manage large and complex datasets  **Qualification:**   * A degree or equivalent experience in a relevant field.   **Experience:**   1. Basic experience of writing code or contributing to the development of software in a high-level programming language. 2. Basic experience of working with large datasets.   **Knowledge and Skills:**   1. Interest in engaging in and contributing to writing and publishing research papers, particularly for refereed journals. 2. A demonstrable ability to conduct research in line with the objectives of the project 3. Evidence of planning skills to contribute to the research project 4. A commitment to continuous professional development   **Welsh Language:**  Level 1 – A little  For more information about the Welsh Language Levels please refer to the Welsh Language Skills Assessment web page, which is available [here](https://www.swansea.ac.uk/welsh-language-standards/compliance/recruitment/).  **Desirable Criteria:**   1. Experience with working according to software development methodologies, particularly agile methodologies. 2. Some familiarity with epidemiological research and statistical analysis 3. Experience programming in SQL, R, and/or Python. 4. Understanding of epidemiological study designs 5. Creating reproducible workflows for data management and analysis 6. Using version control tools (e.g. git) |
| **Additional Information** | Informal enquiries: Informal enquires are welcomed and should be directed to Professor Gwyneth Davies; email at [gwyneth.davies@swansea.ac.uk](mailto:gwyneth.davies@swansea.ac.uk)  Shortlisting Date:  Interview Date: |

  