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| Job Description |  |
| DATA MANAGER: CALIBER |  |
| Department: UCL Institute of Health Informatics | Grade: 7 |
| Location: 222 Euston Road, London, NW1 2DA | Hours: 1 FTE (5 days per week) |
| Duration: Available immediately for 12 months with the possibility of further extension |  |

#### Reports to:

**LONDON’S GLOBAL UNIVERSITY**

Dr Arturo Gonzalez-Izquierdo, Senior Data Scientist, UCL Institute of Health Informatics

#### Context

**UCL Institute of Health Informatics** invites applications for a full-time Data Manager to work on the CALIBER platform (www.caliberresearch.org). The postholder will work within a team of experienced health data scientists, statisticians and clinical epidemiologists and will contribute significantly to the management and data processing requirements of a large linked electronic health record research data platform. CALIBER is a unique data resource consisting of high resolution clinical for approximately 15 million patients across primary care, hospital care, disease registries and mortality register.

#### Main purpose of the job

The postholder will support the CALIBER data science team (Senior Data Scientist, Health Data Manager and Data Science Facilitator) to prepare data extracts for researchers including the management, extraction, harmonisation and curation of health data from the CALIBER research data platform using open source tools and established metadata standards. The postholder will also actively contribute to consolidating the data integration and establishing robust research data provision processes at the Institute, particularly testing the current data workflow and data provision practices. He/she will have a strong technical and methodological background in one or more relevant disciplines including: bioinformatics, information systems engineering and computer science and substantial experience working with large health or administrative datasets.

#### Duties and responsibilities:

The Data Manager will work closely with the CALIBER Data Lab team to undertake key data management tasks across the CALIBER data platform. Responsibilities fall under 3 main areas:

**(i) Data management**

* Program, document and implement phenotype and EHR cohort extraction algorithms
* Coordinate data management and data provision under strict adherence to UCL information governance policies
* Build and support new research data platforms in response to specific study protocols based on the CALIBER population
* Catalogue and control of metadata parameters and metadata administration towards the automation of data extraction
* Ensure consistency and documentation of data curation and extraction procedures
* Communicate effectively with researchers to facilitate definition of relevant data specifications

**(ii) Research Administration**

* Assist the Data Science Facilitator in the administration of data sharing for internal and collaborative projects and ensuring projects and data requests are logged and managed according to standard operating procedures
* Act as a point of contact and coordination between researchers using the UCL Data Safe Haven and the Data Lab (i.e. new user accounts, data extractions, governance review)

**(ii) Teaching, training and supervision**

* Participate in existing and new teaching activities across the field of using linked electronic health records for research. This will involve MSc level teaching (e.g. supervision of MSc dissertations), and involvement in the new MSc in Data Science for Health and Biomedicine at the UCL Institute of Health Informatics
* Developing web-based resources and seminar series around CALIBER and/or EHR.

**Personal development opportunities**

We will strongly encourage and support the post-holder to develop and pursue a research and/or software engineering career in clinical informatics. This may include personal fellowship applications where appropriate. The post holder will be expected to formulate a personal development plan and to capitalise on training opportunities at the IHI and/or through UCL’s Graduate School as appropriate.

# Person specification

| Criteria | Essential or Desirable |
| --- | --- |
| **Qualifications, skills, experience and knowledge** |  |
| Good first degree in relevant discipline or related experience | Essential |
| MSc in relevant quantitative discipline (e.g. bioinformatics, information systems engineering, computer science) or relevant working experience | Essential |
| PhD in relevant quantitative discipline (e.g. bioinformatics, information systems engineering, computer science) or relevant working experience | Desirable |
| **Skills/Abilities** |  |
| Experience designing and using Relational Database Management Systems (e.g. MySQL) and performing queries using SQL | Essential |
| Basic statistical skills and the ability to perform cross-tabs and reports describing the data to non-technical audiences | Essential |
| Experience in managing large, complex datasets (>10M rows) | Essential |
| Experience in analysing large datasets from clinical information systems in hospitals and healthcare providers | Desirable |
| Experience of computationally intensive analysis using HPC clusters | Desirable |
| Experience with research governance policies and procedures (IRAS, ISAC, NHS R&D, REC) | Desirable |
| Strong experience in at least two from the following: R, Python, Perl, or evidence of significant experience in a software engineering role, using any other contemporary programming language. | Essential |
| **Experience** |  |
| Working in collaborative software projects | Essential |
| Working in a complex environment and achieving results | Desirable |
| Publication record as lead or co-author in relevant area of research | Desirable |
| **Knowledge / Aptitude** |  |
| Electronic Health Record (EHR) specifications and standards, health information exchange standards and controlled clinical terminologies | Desirable |
| Current debates in big data health research and electronic health records | Desirable |
| Working knowledge of metadata standards (e.g. DDI, SDMX etc) | Desirable |

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# Apply

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