



## Job Description

This form summarises the purpose of the job and lists its key tasks. It is not a definitive list of all the tasks to be undertaken as those can be varied from time to time at the discretion of the School, in consultation with the postholder.

**Job title:** Data Science Software Engineer

**Department/Division:** Psychological and Behavioral Science      **Accountable to:** Dr Michael Muthukrishna

### Job Summary

Psychological and Behavioral Sciences seeks to appoint a full-time Data Science Software Engineer where you will be working on the world's first comprehensive online quantitative and qualitative database of history. The Database of Religious History (DRH) is an exciting project designed to serve as a centralized system for scholarly knowledge of the historical record.

The successful candidate will have a relevant degree in computer science, software engineering, computer systems engineering, operational research, information technology, or similar. Advanced knowledge of statistics / data science, programming in relevant languages (Python, R, C++, HTML/CSS/JS), experience with web technologies (in particular Django, React, node.js, Docker, Ansible, AWS), and previous experience in a similar position or equivalent qualifications will be favorable. Reporting directly to the Technical Director, the successful candidate will be required to work with, and coordinate a variety of stakeholders, including the Project Director, Managing Editor, historians, administrative personnel, and other software developers based around the world. You will be required to work independently and as part of a worldwide team and be responsible for maintaining and overseeing the ongoing development and expansion of the DRH project some software development and server administration, some statistical analyses and associated reports and papers, and advising project leaders as required. There may also be opportunities for academic collaboration on journal articles. You will be based at the London School of Economics and Political Science, but may be required to travel.

In collaboration with the Technical Director and the project team (including the software developers), the postholder's main role will be to take forward the expansion of the DRH project which will involve, but not be limited to, coordination, implementation and documentation of the project. This will require a background in computer science, software engineering, computer systems engineering, operational research, information technology, or similar, as well as a strong understanding of various programming languages, systems design, operational research, and statistics. Related experience will be strongly considered. The successful candidate will also have excellent written and verbal communication and organisational skills to coordinate research under the project.



### **Duties and Responsibilities**

Coordinate and manage a team of professionals to expand and develop the existing system. These will include the primary software developers and non-technical personnel in the sciences and humanities.

Provide feedback and guidance to developers on the design and features of the system, consistent with the Technical Director's vision for the project. These will include backend architectural decisions and front end design decisions.

Provide regular updates to the Project Director, Technical Director and other relevant stakeholders

Assist with running training programs for historians/RAs who will enter information into the system

Troubleshoot complex and unseen database and server issues in an accurate and timely manner

Create standard procedures and documentation to enhance scalability and performance of existing architecture and maintaining records on repair and installation

Ensure database disaster recovery by working with software developers to test and manage back up procedures to ensure continuous availability and speedy recovery.

Supervise installation, migration and upgrade of platform.

Prepare reports on database scalability, performance, and capacity planning as needed.

Stay updated with new technologies and analyze such technologies to bring into scope of existing infrastructure.

Ensure that the conceptual design considers both back-end architecture and front-end accessibility for end-users

Design and develop new technologies related to the DRH (e.g. R packages)

Manage social media presence in collaboration with Managing Editor and other staff, including existing platforms (Twitter and Facebook) and planned future platforms (Quora, blog).

Organise conferences, workshops and seminars, as required.

Write, contribute and present reports and papers for publication in a variety of modes including peer reviewed journals.

Contribute to the formulation of peer reviewed research grant proposals, if required.

### **Flexibility**

To deliver services effectively, a degree of flexibility may be required in the duties performed in order to meet the exigencies of service. Job roles may also naturally develop over time and ongoing substantial changes to a role will be discussed between line managers and their staff, with job descriptions updated as and when appropriate.

### **Equity, Diversity and Inclusion (EDI)**

LSE is committed to building a diverse, equitable and truly inclusive university. All posts (and post holders) will seek to ensure diversity and inclusion, while opposing all forms of unlawful and unfair discrimination on the grounds of age, disability, gender identity, marriage and civil partnership, pregnancy and maternity, race, nationality, ethnic or national origin, religion or belief, sex and sexual orientation, or social and economic background.



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**Ethics Code**

Posts (and post holders) are assumed to have a responsibility to act in accordance with the School's Ethics Code and to promote the principles and values that the Code enshrines. The Ethics Code clearly states that the whole LSE community, including all staff, students, and governors of LSE, are expected to act in accordance with the principles which are set out in the Code. As such you are required to read and familiarise yourself with it. The School's Effective Behaviours Framework is designed to support this Code. It sets out examples for the six behaviours that all staff are expected to demonstrate, these can be found on the following link: [click here](#)

**Environmental Sustainability**

The post holder is required to minimise environmental impact in the performance of the role, and actively contribute to the delivery of the LSE Environmental Policy.