

Job Description: PCREP Peace-Research Data Engineer

The Peace-Research Data Engineer will contribute to the operation and support of research for the FCDO-funded Peace and Conflict Resolution Evidence Platform. In particular, they will work to support the management, modification, organisation, and advancement of the data in the PA-X Peace Agreement Database (PA-X Main), its sub-databases (PA-X Gender, Local, Ceasefires), and other related data resources; and assist with analysing (as part of a team), visualising, and disseminating findings from the data. Staff will be expected to support the overall delivery of the Programme, and the University of Edinburgh outputs.

The Data Engineer will be based in the Law School and will work under the supervision of the Dr Sanja Badanjak, but also liaise with colleagues in the School of Informatics.

1. Job Details

Job title: Peace-Research Data Engineer (1.0 FTE)
School: School of Law
Line manager: Dr Sanja Badanjak
Start date: 01/11/2021
End date: 31/03/2022
Grade: UE06

2. Job Purpose

The post-holder will assist Dr Badanjak, Prof Christine Bell (Programme Director) and the PCREP Research Fellows with data management, collection, extraction, visualisation, and analysis, as well as the dissemination of research findings, and digital innovation in the running of the Programme. They will provide research assistance to the Programme Director and Dr Badanjak as required, including data analysis, manipulation, acquisition, and visualisation, relating to PA-X and related research, and providing general statistical and research computing assistance to the Programme as required.

3. Main Responsibilities

- Collect and analyse quantitative data on peace agreements, including ceasefires and local agreements and interim arrangements, under the supervision of the Programme Director and supported by the PCREP Research Fellows.
- Develop, design, modify, and implement a variety of computer program routines in statistical and other software in order to assess, merge, manipulate, create, and transform datasets.
- Extract, clean, and organize data collected from a variety of sources, such as websites, databases, and documents (particularly those in PDF format), where possible suggesting and establishing sustainable systems in close co-operation with Dr Badanjak.
- Support the Programme's compliance with data collection regulations and research ethics procedures.
- Support Dr Sanja Badanjak in data management and analysis required for the PCREP components.
- Drafting under supervision, of data and findings to support the production of high-level research publications and policy briefings.
- Provide high-quality data analysis to the Programme using PA-X, with the support of the PCREP Research Fellows and under the supervision of Dr Badanjak.
- Make open-source data publicly available through the Programme website.

- Assist with the Programme's dissemination activities under the supervision of the Programme Director and with support of the PCREP Research Fellows, in particular through helping establish digital systems.
- Liaise with students on work-based placements/dissertation placements with PCREP in a collegial manner.
- Assist digitalisation of programme management activities where appropriate.

4. Planning and Organising

In conjunction with other members of the team, the post-holder will plan and manage their own workload to ensure that all the tasks are completed to a high standard and the data analysis is conducted in accordance with the research timetable. This will involve specific planning of tasks over short timescales with some advance planning for longer periods.

5. Problem Solving

The post-holder will be expected to resolve routine problems but support will be available from Dr Badanjak (and/or PCREP Research Fellows where appropriate) for more complex issues.

6. Decision Making

The post-holder will be responsible for prioritising their own tasks within the overall research Programme and will be expected to make decisions concerning the most appropriate course of action. They should use experience and knowledge to overcome practical difficulties and decide upon the best course of action, either independently or in consultation with Dr Badanjak (and/or the Programme Director/Programme team where appropriate).

7. Key Contacts/Relationships

Key contacts are Dr Sanja Badanjak (line manager), Professor Christine Bell (Programme Director), Dr Harriet Cornell (Programme Manager), and other researchers and staff within the Programme and any affiliated students.

8. Knowledge, Skills and Experience Needed for the Job

Qualifications

Essential

- Honours or Masters degree in Informatics, Statistics, Data Science, Political Science, Law, Sociology, or related discipline;
- Experience of quantitative analysis and programming completed during study and/or research career.

Desirable

- Postgraduate research or equivalent experience involving development, human rights, international humanitarian law, gender studies, transitional justice or conflict resolution.

Experience

Essential

- Experience of using quantitative research methods;
- Experience of using and updating digital databases and datasets, particularly in peace processes or conflict or similar areas;

- Experience of using digital resources and platforms for analysis;
- Experience of basic visualisation of data.

Desirable

- Experience of using innovative methods to display datasets (e.g. mobile apps, maps, data visualisations);
- Experience of conflict or post-conflict national settings;
- Experience of analysis relating to fragile and/or conflict-affected states;
- Experience of work with large quantitative datasets in social sciences;
- Working familiarity with Github;
- Experience with natural language processing and machine-learning algorithms;
- Basic web technology skills;
- Working knowledge of HTML, JavaScript, and web design.

Knowledge, Skills, and Competencies

Essential

- Proficiency in use of R and Python;
- Strong technical skills and problem-solving abilities related to research data management;
- Capacity to produce research-focused data and to work in a team-based context;
- Understanding of how to engage with research end-users;
- Knowledge of how datasets and their computer interfaces work;
- Excellent organisational skills;
- Excellent personal, written, and verbal communication skills;
- Ability to work as part of a team;
- A flexible approach to working;
- A commitment to high standards of integrity, ethics, managing risk, and the ethos of a programme funded with money from UK Aid and aiming to contribute to the reduction of poverty.

9. Dimensions

The Peace and Conflict Resolution Evidence Platform is funded by the UK's Foreign, Commonwealth and Development Office. The post will be based in the University of Edinburgh's Old College. The post-holder will be expected to work closely and effectively with academic and professional services staff across the Programme.

10. Job Context and any other relevant information

The programme may require the post holder to undertake domestic and overseas travel.

11. How to Apply

- Applicants should submit a covering letter and CV outlining how they meet them to Harriet.Cornell@ed.ac.uk, together with a link to or file with a sample of their work, whether in written, visual or online form (we strongly recommend);
- This post may suit a secondment or consultancy opportunity;
- Applications should be submitted by **Thursday 14 October 2021**;
- Interviews will be held in October 2021;
- This post has a start date of 1 November 2021 and an end date of 31 March 2022.