Lead Programmer and Technical Manager

JOB DESCRIPTION

Job title: Lead Programmer and Technical Manager
Department: Centre for Experimental Social Sciences (CESS)
Place of work: Nuffield CESS, Nuffield College, New Road, Oxford, OX1 1NF
Responsible to: Professor Ray Duch, Director of CESS
Salary: £39,970 per annum (Research Officer Grade point 13)
Hours: Full time (35 hours per week)
Length of post: 2 years

The Nuffield College Centre for Experimental Social Sciences (CESS) seeks to appoint a skilled programmer who will oversee programming and manage operations of the CESS behavioural labs and its online virtual experiments. CESS runs social science experiments with human subjects in four labs (with networked computers where participants play behavioural games) and using online and mobile interfaces. The labs are located at Nuffield College in Oxford, England; Santiago, Chile; Pune, India; and Tianjin, China, but the position of Lead Programmer and Technical Manager will primarily be based at Nuffield College in Oxford. In addition, CESS conducts a variety of online experiments using the CESS Online subject pools located throughout the world and using second-party subject pools.

Duties of the Lead Programmer and Technical Manager include programming experimental games and surveys, advising social science researchers on relevant programming choices, and coordinating the technical activities at CESS Nuffield and the global labs.

Experiments at CESS are run using a number of technologies, including oTree, a Python-based platform for experimental social sciences and Z-tree. Online experiments are also programmed in Qualtrics. The post would be ideal for an experienced Python programmer with an interest in social sciences. Candidates with experience in other programming languages or platforms, particularly those with experience producing web-based user interfaces, are also strongly encouraged to apply.
The post is full-time and fixed-term for two years in the first instance. There will be an initial probationary period of six months.

**Duties of the Post**

- Taking ownership of the technical side of the research project cycle, including identifying the programming needs of researchers and facilitating the coding of interactive decision-making experiments. The postholder will also provide corrective action for programming choices where needed, taking into account timelines, workloads and resources.

- Maintaining and supporting software applications for interface and game programming (e.g. Javascript / jQuery, Python, Django), to program and facilitate behavioural experiments. On the job training will also be provided to program experiments in specific applications such as Z-tree, O-tree and Qualtrics.

- Maintaining the lab hardware in the Nuffield lab, consisting of 26 networked computers. These need to be maintained in excellent operating condition. The postholder will coordinate with the Nuffield College IT department on hardware issues.

- Maintaining and managing the Nuffield CESS subject pool recruitment databases. CESS maintains subject pool data bases for recruitment of participants in experiments conducted at the four Nuffield CESS experimental labs. Nuffield CESS also maintains online subject pools in the U.K., China, India, North America and Latin America. The postholder will be expected to contribute to the development of these databases.

- Advising other CESS facilities on the setup and configuration of their lab software and hardware. Some travel to the other CESS facilities in Santiago, Chile; Pune, India; and Tianjin, China may be required.

- Managing the day-to-day operations of the virtual laboratory and on-line experiments conducted at CESS (in a typical term CESS conducts three or four on-line experiments consisting of a representative sample of national populations).

- Scheduling and managing the virtual and on-line experiments; maintaining the virtual online subject pools; and assisting researchers in the design of experimental projects, and overseeing the conduct and progress of the experiments.

- Maintaining and supporting software applications and managing the cloud servers which run the virtual and on-line experiments.

- Managing collaborative time–sharing experiments.

- Facilitating and coordinating the CESS lab-in-the-field experiments. This includes overseeing necessary equipment purchases/maintenance, server/router support, and software installations.
• Managing a team of research assistants and taking oversight of their work implementing experiments for CESS. Each experimental project will typically have a number of research assistants helping with their implementation. The postholder will assign projects to the research assistants and oversee their performance.

• In some instances, external programmers will be engaged to undertake programming responsibilities for experimental projects. In these cases, the postholder will be responsible for managing and overseeing the external programmers’ work and contributions to experimental projects.

The Lead Programmer and Technical Manager will report to the CESS Director Raymond Duch.

Selection criteria

Essential

• A Master’s degree in a relevant social science or computing discipline (e.g. computer science, economics, geography).

• Strong demonstrated experience in programming web applications.

• Knowledge of, and experience in interface and game programming (e.g. Javascript / jQuery, Python, Django).

• Willingness to acquire skills in oTree, z-tree and Qualtrics (on the job training will be provided).

• Experience working with SQL databases.

• Experience of working with complex web technologies such as JavaScript, Python, and PHP.

• Good knowledge of networks, servers, and clients.

• The ability to work effectively as part of a small team and with a diverse range of people.

Desirable

• Experience with social science lab experiments.

• Experience working with Windows Domains.

• Experience working with Apache HTTP Server
The Centre for Experimental Social Sciences

CESS was created by Nuffield College, Oxford, in February 2008. Its principal goal is to promote and facilitate experimental research by social scientists at the University of Oxford. In order to accomplish this goal CESS provides a number of services to the experimental community: experimental lab facilities; staff and facilities for designing and implementing online experiments; regular seminars and workshops, and a post-doctoral programme. The current group of postdoctoral researchers have backgrounds in politics, economics, and social psychology.

The Centre has collaborative Experimental Lab facilities throughout the world: at Nuffield College in Oxford, at the University of Santiago in Chile, at FLAME University in Pune, India, and at Nankai University in Tianjin, China.

Further information about CESS can be found here: https://cess-nuffield.nuff.ox.ac.uk/.

APPLICATION PROCEDURE

To apply online for this vacancy, please click on the 'Apply' link below. This will take you to the Interfolio Web Recruitment System, where you will need to register for an account (if you have not done so previously) and log in before completing an online application.

For the online application you will be asked to complete an application form and a recruitment monitoring form, and to upload the following documents:

i) A two-page description of your experience and motivation and how these meet the requirements of the position; and

ii) a curriculum vitae including the names postal and e-mail addresses of two referees.

APPLY

If you have any technical difficulties submitting your online application, please contact Interfolio at help@interfolio.com. For other queries about the post, please contact Melanie Sawers, the CESS Administrative Manager at melanie.sawers@nuffield.ox.ac.uk.

If, for your convenience, you wish to submit a hard-copy application, please contact the Nuffield HR Officer at vacancies@nuffield.ox.ac.uk. Interfolio is a US-based service which processes data on servers based outside the EEA, but which complies with the EU-U.S. Privacy Shield Framework (see www.interfolio.com/privacy-policy/). Information submitted via hard-copy is not processed through Interfolio.

The deadline for receipt of applications is Wednesday 15 January 2020.

Applications will be reviewed as they are received and candidates may be invited for interview in advance of the closing date.
If a candidate is invited to an interview before the closing date, we may contact referees directly before the deadline.

Enquiries:
Melanie Sawers, CESS Administrative Manager, melanie.sawers@nuffield.ox.ac.uk.

TERMS AND CONDITIONS

Full terms and conditions of employment will be provided in writing to the successful candidate. The information below is for guidance only and does not constitute a contract of employment.

Duration

The post is fixed-term for two years in the first instance, subject to the normal pre-employment checks and satisfactory completion of a six month probation period.

Salary

The salary for the post is £39,970 per annum (Research Officer Grade, point 13). Salaries are paid in arrears on the 28th of each month (or where the 28th is not a working day, on the last working day before the 28th) as detailed on your payslip. Salaries are reviewed annually in August, although the College is under no obligation to award an increase following a salary review.

Hours of Work

The post is full time and the normal hours of work are 35 hours per week, exclusive of meal breaks. It is essential that the post holder is able to provide some flexibility with working hours in order the meet the demands of the post and for which time off in lieu will be given.

Holiday Entitlement

The post holder will be entitled to 41 days paid leave per annum (pro-rata for part-time staff) inclusive of all public holidays and College closure days. Annual leave should be agreed with your Line Manager, as appropriate.

Pension

You will be contractually enrolled in the Universities Superannuation Scheme (USS) from the commencement of your employment, unless you opt out by completing and returning to the HR department the relevant form.

Meal Entitlement

Coffee, tea and lunch, whilst on duty, will be provided free of charge except during any kitchen closure period.
**Other Benefits**

Employees will be eligible to participate in a travel to work scheme for the purchase of bus and train tickets, and where appropriate uniform.

**Training**

The College will support the post-holder to undertake any relevant training to enhance his or her career and financial support for these development activities will be provided where appropriate.

**Oxford Colleges’ Healthcare Plan**

The post-holder will be eligible to join the Oxford Colleges’ Healthcare Plan from the commencement of employment. The College will pay for a single membership of the Plan, but you may upgrade, at your own expense, your membership to cover your partner / spouse or your family. As this is a work benefit you will pay tax on the Subscription Rates.

**Equal Opportunity statement**

The policy and practice of the University of Oxford and Nuffield College require that all staff are afforded equal opportunities within employment. Entry into employment and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation. Where suitably qualified individuals are available, selection panels will contain at least one member of each sex.

**Data Protection**

All data supplied by candidates will be used only for the purposes of determining their suitability for the post and will be held in accordance with the principles of the General Data Protection Regulation (GDPR), the Data Protection Act (2018), and the College’s Data Protection Policy.

**Pre-employment screening**

If you are selected for the post, employment with the College will be conditional upon satisfying the following requirements:

**Eligibility to work in the UK**

The Immigration, Asylum and Nationality Act 2006 makes it a criminal offence for employers to employ someone who is not entitled to work in the UK. We therefore require applicants to provide proof of their right to work in the UK before employment can commence.
Please note that you will need to provide original documents and where any documents are not in English a certified translation will be required. Do not include these documents with your application. You will be sent a request for the relevant information at the appropriate point in the selection process.

Successful applicants who do not currently have the right to work in the UK will be required to apply for permission to do so under the current UK immigration system.

Medical fitness

Please note that any offer of employment will be conditional upon receipt of a completed pre-employment medical health assessment questionnaire and confirmation from the University of Oxford Occupational Health Service that the candidate is medically fit for the post (allowing for any reasonable adjustments that may be required, in line with the provisions of the Equality Act 2010).

The purpose of the pre-employment medical health questionnaire is to:

- Assess the candidate's medical capability to do the job for which they have applied
- Determine whether any reasonable adjustments or auxiliary aids may be required to accommodate any disability or impairment which they may now have
- Ensure that none of the requirements of the job for which they have applied would adversely affect any pre-existing health conditions the candidate may have.

Nothing in these particulars constitutes a contract.

Nuffield College exists to promote excellence in education and research, and is an equal opportunities employer committed to equality and valuing diversity. Applications are particularly welcome from women, from disabled people, and from black and minority ethnic candidates, who are currently under-represented in posts in the College.