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| Last updated: | 13 January 2020 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Statistical Modelling for Prediction**  |
| School/Department: | School of Economic, Social and Political Sciences Department of Economics |
| Faculty: | Faculty of Social Sciences (FSS) |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway |
| Posts responsible to: | Project leader, Prof. Jean-Yves Pitarakis (ERE Level 7) |
| Posts responsible for: | None |
| Post base: | Office-based  |

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| Job purpose |
| To undertake research activities as part of the ESRC funded project “Novel Approaches to comparing the Predictive Accuracy of Nested Models in Data Rich and Heterogeneous Predictor Environments”, funded by the ESRC (Principal Investigator: Professor Jean-Yves Pitarakis). The post-holder will be responsible for developing the code associated with the various techniques developed as part of the project’s goals across multiple languages. The post-holder will also be expected to contribute to the project dissemination and reporting efforts, and to wider academic activities, such as seminars, workshops, and conferences, as required by the project leader.  |

| Key accountabilities/primary responsibilities | % Time |
| --- | --- |
|  | To study and understand the statistical techniques developed as part of the project | 10 % |
|  | To write the code designed to implement the statistical techniques developed in the project for the purpose of dissemination  | 60 % |
|  | To conduct simulation exercises designed to assess the properties of techniques developed in the project.  | 20 % |
|  | To contribute to the writing of project deliverables, reports, journal articles and provide input for the project website | 10 % |

| Internal and external relationships |
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| * **Internal:** The post-holder will work under the direction of Professor Jean-Yves Pitarakis
* **External:** The post-holder may be expected to engage with other academics and potential users of the research to disseminate findings.
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| Special Requirements |
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| Strong quantitative skills (statistics, machine learning).Strong programming skills (Matlab, R, Stata, Python)*Applications will be considered from candidates who are working towards, or have recently completed a PhD in Economics.  The title of Research Fellow will be applied upon completion of PhD.  Prior to the qualification being awarded the title of Senior Research Assistant will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | Currently enrolled, or recently completed, PhD in a quantitative subjectStrong background in StatisticsStrong background in programming  | Experience in R and Matlab package writingExperience disseminating code via GitHub | Application, references, interview |
| Planning and organising | Ability to plan and organise work independently and as part of a teamAbility to work to deadlines |  | Application, references, interview |
| Problem solving and initiative | Ability to manage long-term projects that involve programming, and analysis of statistical techniquesAble to develop understanding of complex problems and apply in-depth knowledge to address themAbility to find solutions to problems as they surface |  | Application, references, interview |
| Management and teamwork | Ability to work as part of a team  |  | Application, references, interview |
| Communicating and influencing | Excellent oral and writing skillsAbility to collaborate in writing research reports |  | Application, references, interview |
| Other skills and behaviours | Compliance with relevant Health & Safety issuesPositive attitude to colleagues and students.Interests in statistical prediction methods  |  | Application, references, interview |
| Special requirements | Willingness to travel to meetings and conferences in the UK and abroad  |  | Interview |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| [x]  Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| [ ]  No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally** (<30% of time) | **Frequently**(30-60% of time) | **Constantly**(> 60% of time) |
| Outside work  |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation  |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** |
| ## Food handling  |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV)  |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)  |  |  |  |
| **PHYSICAL ABILITIES** |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** |
| Face to face contact with public | √ |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties  |  |  |  |

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