DEPARTMENT OF PSYCHIATRY

Job title	Machine Learning Analyst Dementias Platform UK (DPUK)
Division	MEDICAL SCIENCES
Department	PSYCHIATRY
Location	WARNEFORD HOSPITAL
Grade and salary	Grade 7 : £16.98 per hour
Hours	Full time
Contract type	Fixed-term (3 months)
Reporting to	Dr Sarah Bauermeister
Vacancy reference	*Casual*
Additional information	For enquiry or application, please contact Dr Sarah Bauermeister (sarah.bauermeister@psych.ox.ac.uk)

The role

Reporting to Dr Sarah Bauermeister, the post holder is a member of a research group with responsibility for the provision of machine learning analysis for Dementias Platform UK (https://www.dementiasplatform.uk/) brings together 11 academic partners and six industry partners in the fight against dementia. The Dementias Platform's vision is to provide the UK with an integrated research environment enabling a new generation of highly targeted clinical trials linking cellular and molecular changes to patient response. Within the Department we focus on informatics, data analysis, and trials. We are enhancing the UK's cohort, imaging and record linkage informatics capability to provide a 'one-stop-shop' for dementia related data analysis.

We conduct large-scale (broad and deep) data analysis. Our interest is focused on how genetics and lifestyle interacts to affect cognitive and mental health outcomes. We work with other research groups such as EPAD and the Deep and Frequent Phenotyping Study to facilitate recruitment to highly targeted trials and other clinical studies. We are looking to recruit a casual machine learning analyst to work within the DPUK team based in the Psychiatry Department, University of Oxford, at the Warneford Hospital.

Responsibilities

- Manage own research and administrative activities, within guidelines provided by senior colleagues
- Select, follow, and adapt specialist methodologies to confirm or refute theories, and identify suitable alternatives where information or research material is restricted
- Contribute to the design of research materials and presentation documents.
- Gather, analyse, and present quantitative data from multiple large population and disease-specific datasets
- Contribute to research publications, book chapters and reviews
- Contribute to discussions and share research findings with colleagues in partner institutions, and research groups
- Perform data cleaning and data preparation activities as required for the analysis of large-cohort datasets
- Analyse large-cohort datasets for a multi-cohort project using machine learning and statistical methods

Selection Criteria

Essential

- Hold a first degree and postgraduate qualification with a high proportion of statistical/programming/datascience content.
- Ability to manage own research and administrative activities independently.
- Excellent communication skills.
- Experience of working with Excel spreadsheets and other software such as Stata for data cleaning (when needed).
- Proficient with all Microsoft Office tools
- Proficient with Python and R
- Ability to troubleshoot machine learning, statistical and appropriate software problems
- Machine learning background and experience
- Methodical and attention to detail
- Ability to work to changing deadlines and short notice thereof
- Experience with longitudinal data
- Solid statistical background preferably with real-world data
- Ability to independently problem solve with data issues and recovery
- Able to work independently (highly essential)

Desirable

- Experience of contributing to research publications
- Confident communicator, e.g., external collaborators
- Healthcare background

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities. Income from external research contracts in 2016/17 exceeded £564m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

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For more information please visit www.ox.ac.uk/about/organisation

Department of Psychiatry
The Department of Psychiatry based on the Warneford Hospital site in Oxford has an international reputation for excellence. The Head of Department is Professor John Geddes. The Department has a substantial research programme, with major funding from Medical Research Council (MRC), Wellcome Trust and National Institute for Health Research (NIHR) and provides highly rated medical training in psychiatry. There are approximately 220 staff including 33 principal investigators leading research groups investigating applying a wide range of approaches from translational neuroscience, experimental medicine, epidemiology, clinical trials and health services research to developmental disorders, mood disorders, cognitive disorders and self-harm and suicide. There are strong links with other departments and institutes both within and outside Oxford: these links ensure that we can apply the best scientific methods to psychiatric and cognitive disorders. The Department has an annual turnover approaching £10 million with more than 130 research grants.

For more information please visit: http://www.psych.ox.ac.uk

The Department of Psychiatry holds a silver Athena Swan award to recognise advancement of gender equality: representation, progression and success for all.

How to apply

Application is by CV and covering letter – please sent this to Dr Sarah Bauermeister sarah.bauermeister@psych.ox.ac.uk

Important information for candidates

Pre-employment screening

All offers of employment are made subject to standard pre-employment screening, as applicable to the post.

If you are offered the post, you will be asked to provide proof of your right-to-work, your identity, and we will contact the referees you have nominated. You will also be asked to complete a health declaration (so that you can tell us about any health conditions or disabilities so that we can discuss appropriate adjustments with you), and a declaration of any unspent criminal convictions.

We advise all applicants to read the candidate notes on the University's pre-employment screening procedures, found at: www.ox.ac.uk/about/jobs/preemploymentscreening/.

Equality of Opportunity

Entry into employment with the University 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. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.