Job Description

Data Scientist – Affective Computing (KTP Associate)

Reference: 1852489

Department of Electronic and Electrical Engineering

Reports to:
- Professor Miguel Rodrigues, Professor – Department of Electronic & Electrical Engineering, UCL
- Kenko Fujii, Lead Data Scientist – LaunchPad Recruits

Duration: 24 months in the first instance.

Available immediately, depending on candidate’s availability.

Hours: 36.5 per week. Requests for flexible working considered.

A ‘DBS’ check will be required (a background check on previous convictions).

Background to this KTP project:

UCL and LaunchPad Recruits are coming together through a Knowledge Transfer Partnership (KTP), a national scheme which helps businesses to innovate and grow, by linking businesses with a university and a highly-qualified graduate, known as a KTP Associate. We are now recruiting for a KTP Associate who will work full-time on this innovative project putting the latest academic research into practice, based at the LaunchPad Recruits offices.

This is a unique opportunity for you to gain commercial skills and experience, working inside a dynamic business which is changing the face of emerging and enabling technologies, and working alongside world-leading academics on an innovative and scientifically rigorous project.

Benefits:
- Work on a complex project in line with your research interests at the heart of an innovation-
focused UK company, alongside academic experts.

- Publish your work in collaboration with UCL.
- Attend international conferences to share your work, with £4500 for travel and £3000 for materials for the project.
- Develop your technical and commercial skills with a £4000 dedicated personal development budget for your exclusive use.
- Fast track your career development by joining the largest and most well-established graduate scheme in the UK.
- Access to UCL’s extensive range of benefits, including 27 days annual leave, plus 6 closure days and UK bank holidays.

**UCL supervision arrangements**

You will be physically based at LaunchPad Recruits, Fleet House, 8-12 New Bridge Street, London, EC4V 6AL. You will receive regular supervision from Professor Miguel Rodrigues from the Department of Electronic and Electrical Engineering (line manager) and Professor Nadia Berthouze from the UCL Interaction Centre.

**About the Knowledge Transfer Partnership programme**

The Knowledge Transfer Partnership (KTP) scheme is jointly funded by government and business. It helps businesses to innovate and grow by linking them with a university and a graduate, the ‘KTP Associate’, to work on a specific project.

A KTP is a three-way partnership between LaunchPad Recruits, UCL and the KTP Associate. Although you will be employed by UCL, you will work full-time at the company and liaise regularly with the academic team, visiting UCL campus from time to time.

Further information about KTPs and the benefits of taking part is available here and also here.

**About LaunchPad Recruits**

Launchpad Recruits is an online recruitment automation platform with offices in London, Derry and the Philippines. The company offers unique analytics and machine learning services to a continually scaling customer base, consisting of many well-known and popular worldwide brands. We are VC backed and growing fast. The post-holder will work within the Data Science and Engineering Team that has 3 core team members. You will also collaborate with the wider product and quality assurance team that includes over 20 employees.

**LaunchPad’s vision and how the KTP role fits in**

LaunchPad’s long-term vision is to provide an exceptional recruitment experience, facilitated by cutting-edge automated recruitment technology providing convenience, speed and business efficiency for clients. With machine learning based automation, however, the stakes become high. Decisions of the new digital model will have a real impact on human lives. The quality and performance of the recommended candidates when they are recruited to our clients will directly impact their commercial reputation. As such, our machine learning based product services need to be accurate, robust and explainable.

The strategic background for the KTP is therefore to improve on state-of-the-art modelling techniques to work towards improving both the performance of the models while improving explainability of the model’s decision making process.

**Duties and Responsibilities**

- To develop new machine learning functionality – namely deep learning methods – to score the employability potential of various candidates using video and audio feeds, in collaboration with supervisor Professor Miguel Rodrigues and LaunchPad.
• To develop additional machine learning functionality – namely reinforcement learning methods – to take into account employer feedback to refine the score of the employability potential of various candidates, in collaboration with supervisor Professor Miguel Rodrigues and LaunchPad.

• To conduct a survey of existing frameworks, infrastructure, and technology to automate recruitment processes, with emphasis on recent machine learning and artificial intelligence technology.

• To conduct a review of existing work on affect and personality labelling protocols within the affective computing literature and the human resource literature.

• To work with LaunchPad occupational psychologists and supervisor Prof Nadia Berthouze to develop a data acquisition protocol, a data acquisition tool and a data labelling protocol.

• To oversee the important data labelling process which will ultimately augment existing datasets with additional features relevant to HRTech (e.g. affective states, personality traits, or other personal characteristics).

• To integrate the developed machine learning functionality within Launchpad systems, along with delivering the relevant operational manuals.

• To lead the preparation, submission, and revision of high-quality high-profile research journals and conference papers.

• To present research work at project meetings, workshops and conferences within UCL, LaunchPad and in the UK or internationally.

• To contribute to the overall activities of the UCL and Launchpad team, group or department as required.

• To participate in LaunchPad’s code review process, for example, if there is a need to merge code. Become familiar with LaunchPad’s ‘scrum’ process and ‘sprint planning’.

• To own and manage a discretionary travel, equipment and professional development budget totalling £11,500. You will receive training on checking for errors, forecasting spending and flagging future issues.

• The postholder will carry out any other duties within the scope, spirit and purpose of the job as requested by the line manager, academic supervisor or company supervisors.
## Person Specification

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<tr>
<th>Criteria</th>
<th>Essential or Desirable</th>
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<tr>
<td><strong>Knowledge – including Qualifications</strong></td>
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<tr>
<td>A Masters in Computer Science, related to Machine Learning, Computer Vision or related subjects (this enables appointment at grade 6).</td>
<td>Essential</td>
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<tr>
<td>PhD (or about to submit) in Computer Science, related to Machine Learning, Computer Vision or related subjects (this enables appointment at grade 7).</td>
<td>Desirable</td>
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<tr>
<td>Experience, knowledge in two or more areas from: (1) machine learning, (2) computer vision, (3) audio processing</td>
<td>Essential</td>
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<td>Experience and knowledge in: (1) Labelling processes, (2) Modelling affective behaviour</td>
<td>Desirable</td>
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<td><strong>Skills</strong></td>
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<td>Skills in programming languages such as Python and software frameworks such as TensorFlow</td>
<td>Essential</td>
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<td>Ability to work collaboratively in teams with multiple stakeholders</td>
<td>Essential</td>
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<td>Ability to communicate complex information to multiple stakeholders</td>
<td>Essential</td>
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<td>Excellent writing and communication skills</td>
<td>Essential</td>
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<td><strong>Experience</strong></td>
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<td>Skills to develop new technological solutions to challenging problems, underpinned by solid research principles</td>
<td>Essential</td>
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<td>Skills to interpret and articulate technical and complex information</td>
<td>Essential</td>
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<td>Skills to translate new technological solutions research and implement results in a real commercial environment</td>
<td>Desirable</td>
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<td><strong>Personal Qualities</strong></td>
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<td>Good interpersonal and communication skills</td>
<td>Essential</td>
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<td>Able to use own initiative and prioritise workload</td>
<td>Essential</td>
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<td>Able to work independently and collaboratively in an interdisciplinary team with good stakeholder management skills</td>
<td>Essential</td>
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<td>Strong enthusiasm for gaining industry experience and interest in the HR tech sector</td>
<td>Desirable</td>
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Appointment details and notes

Please note that this post is subject to funding from the company and Innovate UK through the Knowledge Transfer Partnership programme and it is subject to a collaboration agreement being agreed between the company and UCL. As duties and responsibilities change, the job description will be reviewed and amended in consultation with the post holder. Full terms and conditions of employment can be found on the UCL website.

London Allowance is included in the salary. The successful candidate will be working at LaunchPad Recruits, Fleet House, 8-12 New Bridge Street, London, EC4V 6AL.

Appointment at Grade 6 or 7 will be dependent on the candidate’s skills and experience. Appointment at Grade 7 is dependent upon having been awarded a PhD. If the successful candidate does not have a PhD, or is about to complete their PhD, appointment will be made at Grade 6, point 24 - 26, on the UCL salary scale £31,479 - £33,194 per annum (inclusive of London Allowance). Payment at Grade 7, point 29, will be backdated to the date of final submission of the PhD thesis (including corrections), where relevant.

About UCL and the Department of Electronic and Electrical Engineering

University College London (UCL) was founded in 1826 as the third university in England, after Oxford and Cambridge. UCL is the first university in England to admit students of any race, class or religion, and the first to welcome women on equal terms with men. UCL is organized into 11 constituent faculties, within which there are over 100 departments, institutes and research centres. UCL has 983 professors and more than 7000 academic staffs who are dedicated to research and teaching of the highest standards. Its student community is almost 36,000, the largest in the UK. There are 29 Nobel Prize winners and three Fields medalists amongst UCL’s alumni and current and former staff. UCL is the top rated university in the UK for research excellence (REF2014). It has a strong tradition and large knowledge base in medical research with a dedicated institute on Healthcare Engineering and 10+ hospitals. UCL has world-class support for researchers and has been voted the best place for postdoctoral researchers to work for consecutive years by The Scientist magazine. The main campus of UCL is located in central London.

The Department of Electronic and Electrical Engineering (EEE) at UCL was established by Professor Sir Ambrose Fleming, inventor of the thermionic valve and hence the founder of the discipline of electronics, in 1885 as the first department of electrical technology in England. That same pioneering tradition of innovation and excellence continues to underpin our work. We push in new directions across research, education and entrepreneurship, building on our long-established links with industry and benefitting from our loyal and supportive alumni community. We are committed to develop individuals and careers, across staff and students, developing and supporting our subject discipline.

About UCLIC

UCL Interaction Centre (UCLIC) is a world leading Centre of Excellence in Human-Computer Interaction teaching and research. We study interactions between people and technology, drawing on the best scientific traditions in Computer Science, Human Sciences, Design and Engineering and working collaboratively with the research community and industry. UCLIC is co-located with the Department of Computer Science in Gower Street and is also part of the Division of Psychology and Language Sciences.

How to Apply

Interested applicants are encouraged to make informal enquiries about the post to Professor Miguel Rodrigues | m.rodrigues@ucl.ac.uk

All applications should be submitted via UCL online recruitment system at the following link: http://www.ucl.ac.uk/hr/jobs/

Job Reference: 1852489

If you have any queries regarding the application process please contact Vicky Coombes at v.coombes@ucl.ac.uk quoting reference 1852489

UCL Taking Action for Equality