Machine Learning Engineer for Audio Applications

Job Specification

1   The Role:

We are currently recruiting a Machine Learning Engineer with a successful background building predictive models and classification systems. The role will require these skills to be applied within an agile technology start-up working on an exciting research project. The aim of the project is to apply machine learning techniques to audio data captured using novel sensing systems and methods.

The successful candidate will be responsible for the core machine learning aspects of the research, applying advanced machine learning methods to audio signals. The role will involve exploring small audio data sets in order to identify opportunities and suitable approaches for machine-based classification. Following this, you will be responsible for developing and implementing machine learning models for further analysis and prediction.

You will have an opportunity to work on leading-edge science and technology. The results of your work could radically alter the way people and systems interact in the future.

2   The Company:

Telesemica is a spin-out company established to develop and commercialise a set of novel audio technologies and intellectual property resulting from research carried out by UK MOD. Founded in early 2022, Telesemica is located on the Porton Science Park in Wiltshire, UK.

Telesemica has secured a substantial research contract in the field of advanced audio processing and machine learning applied to sound. We are looking for talented, motivated and self-directed people to join our small team of skilled scientists and engineers.

3   Candidate Profile:

The ideal candidate will have a background in electronic engineering, computer science or a related subject, combined with postgraduate research experience in machine learning applied to audio data (e.g. speech, music, sonar, etc.) or a closely related field, such as computer vision. Relevant industrial experience will also be considered. The candidate should be comfortable working both independently and collaboratively within a small team of scientists and engineers, as well as commercial people.

4   Essential Skills, Experience and Qualifications:

- PhD obtained in electronic engineering, computer science or a related subject, or master's degree in machine learning (very strong and relevant first degree with relevant post graduate academic research in machine learning would be considered).

- 2+ years of data science / machine learning experience beyond postgraduate degree, involving numerical or mathematical data.

- An ability to explore data statistically and graphically to understand a dataset in depth as a pre-cursor to successful model creation and evaluation.

- Experience of building data classification systems, using languages such as Python and/or MATLAB, combined with relevant signal processing, machine learning and/or deep learning tools (TensorFlow, PyTorch, etc.).

- Some experience and familiarity with signal processing techniques.

- Problem-solving and highly analytical mindset, with an interest in analysing and categorising audio data.

- Ability to work independently, with strong organisational and time management skills.

- Note: Although Telesemica is a private company, for security clearance reasons, candidates will need to comply with the Nationality Rules for Civil Service Employment (non-reserved posts) that can be found here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1058926/civil-service-nationality-rules.pdf.
Candidates are strongly encouraged to review these requirements prior to submitting an application.

5 Desirable Skills and Experience:

- A strong scientific background with experience of working with other scientists and scientific data.

- Experience in any of the following areas would be advantageous:

  o Multiple classification/machine learning models, in particular any that have been applied for the classification of sound.

  o One-shot training and/or training machine learning systems based on small data sets.

  o Classifying audio data, such as speech, music or sonar.

  o Voice recognition, identification or any other machine learning relating to acoustics.

  o Working with audio systems and audio data.

6 What we offer:

- The chance to join a new start-up at the start of an exciting journey.

- The opportunity to work on cutting edge data science and machine learning challenges.

- Flexible working arrangements, including some opportunity to work from home.

- Salary £55-60K commensurate with experience.

- 25 days paid holiday.

- Pension scheme.

- The opportunity to be considered for employee share option incentive plans.

7 Equality and Diversity:

Telesemica is an equal opportunity employer. Our goal is to welcome everyone and create inclusive teams. We celebrate difference and encourage everyone to apply – and, if they join us, to be themselves at work. Would particularly like to encourage applications from women, disabled and Black, Asian & Minority Ethnic candidates, since these groups are currently underrepresented in our area.

8 Apply Now:

Please email your CV and cover letter outlining your interest in this role to recruitment0323@telesemica.com.

Please ensure that you have the right to work in the UK before applying to work with us. Telesemica is based at Porton Science Park in Wiltshire.

This is a full-time (37.5 hours/week) permanent position. Candidates will need the ability to work from home but also to meet regularly with other team members at Porton Science Park.

Recruiters

We work with a carefully selected list of recruitment agencies and we are not looking to add to our current suppliers. We do not accept unsolicited agency CVs from recruiters and will not be responsible for any associated fees. In any situation where we have not directly engaged your company in writing to supply candidates for a specific vacancy, these will be considered by us to be a "free gift". We will not be liable for any fees whatsoever should we choose to contact the candidate directly or engage the candidate's services, and it will in no way establish any prior claim by your company to representation of that candidate should the candidate's details also be submitted by any other party.

Submission of any unsolicited CVs to us by your company will be deemed evidence of full and unlimited acceptance by your company of these terms, and agreement by your company that these terms are the totality of any commercial or contractual relationship whatsoever between our companies in respect of the candidate(s) whose unsolicited CVs were thus sent.