

## Research Role Profile

<b>Job Title:</b>	Research Assistant in Natural Language Processing for E-Commerce
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<b>Responsible to:</b>	Dr Diptesh Kanojia
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<b>Responsible for:</b>	Not applicable
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<b>Job Summary and Purpose:</b>
To undertake research in accordance with the project under the supervision of the principal investigator.

<b>Main Responsibilities/Activities</b>
<p>To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the supervisor. This may include deploying computational experiments, critical evaluation and interpretation, data analysis, and research paper writing along with literature research.</p> <p>Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.</p> <p>To carry out tasks associated with specified research funding, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting.</p>

## Research Role Profile

### Person Specification

#### The post holder must have:

A Master's degree (gained or near completion) or equivalent professional experience in NLP, computer science, with proven experience of applied NLP. Experience in one or more of the following areas is necessary: machine learning for NLP, deep learning, using transformer-based models for language processing, model architecture, model fusion, information retrieval. Good programming experience in Python and proven use of relevant frameworks like Pytorch or Tensorflow. Interdisciplinary research experience will also be desirable.

### Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.

### Special Requirements

N/A

#### All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
  - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
  - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

## Research Role Profile

**Addendum to Profile**

<b>Job Title:</b>	Research Assistant in Natural Language Processing for E-Commerce
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**Job Summary and Purpose:**

This information sheet should be read in conjunction with the accompanying generic Research Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to:

Work as part of a experienced research team on the "Lightweight character level embeddings" project funded by eBay Inc.

**Main Responsibilities/Activities**

- To undertake a range of research activities in the field of natural language processing.
- To design, develop and validate neural network architecture for efficient query-title retrieval and ranking.
- To publish in journals, top conferences and specialised workshops.
- To use initiative and creativity to identify areas for development of new research methods and extend the research portfolio in the corresponding field of research.
- To plan and manage own research activity in collaboration with the members of the project.
- To carry out management and administrative tasks associated with specified research funding.

## Research Role Profile

### Person Specification

#### The post holder must have:

- A Master's degree (gained or near completion) or equivalent professional experience in NLP, or computer science.
- Very strong experience with using NLP for practical applications
- Excellent experience with machine learning for NLP
- Excellent communication skills
- Excellent understanding of the state of the art in NLP
- Good programming skills

#### It would be desirable but not essential for the post holder to also have:

- Hands on experience with transformer models
- Excellent knowledge of python
- Experience in information retrieval and document ranking post-retrieval
- Experience with interdisciplinary research

### Relationships and Contacts

The post holder will liaise primarily with the Dr Diptesh and Prof Constantin Orasan of the Centre for Translation Studies. There will also be a requirement to liaise with staff from eBay who are involved in the project.