



<b>Job Title:</b>	Research Fellow A
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<b>Responsible to:</b>	Principal investigator
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<b>Responsible for:</b>	Responsibility for staff within own research group and PhD co-supervision
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<b>Job Summary and Purpose</b>
To plan and deliver research in accordance with the specified research project.

<b>Main Responsibilities/Activities</b>
<p>To contribute to the development of the research of the Faculty, by planning and carrying out research activity within a specified area, often in collaboration with colleagues.</p> <p>To take a significant role in planning, co-ordinating and implementing research programmes and, where appropriate, commercial and consultancy activities. To take lead responsibility for a small research project or identified parts of a large project. To make decisions about research programmes and methodologies, often in collaboration with colleagues, and to resolve the problems of meeting research objectives and deadlines.</p> <p>To develop new concepts and ideas to extend intellectual understanding. Assess, interpret and evaluate the outcomes of research, and develop ideas for the application of research outcomes. To take a leading role in the regular publication of results in appropriate journals, in giving presentations at national and/or international conferences, and in other outputs. .</p> <p>Pursue and advocate responsible and open research and innovation to ensure ethical, fair and inclusive advances in science, technology and use of data.</p> <p>Continually update knowledge and develop skills. To extend, transform and apply knowledge acquired from scholarship to research and appropriate external activities.</p> <p>To carry out management and administrative tasks associated with specified research funding, including managing and developing staff within their projects; risk assessment of project activities; organisation of project meetings and documentation; management of resources, preparation of annual reports, and monitoring of research budgets. To oversee and implement procedures to ensure accurate and timely reporting and financial control.</p> <p>To undertake liaison with external organisations including equipment manufacturers, steering committees, associated academic facilities and commercial users.</p> <p>To contribute to teaching within the Faculty by carrying out student supervision, demonstrating or lecturing duties within the post holder's area of expertise. May be required to contribute to the supervision of research students.</p>

<b>Person Specification</b>
<p><b>The post holder must have:</b></p> <p>A doctoral degree in a relevant discipline, together with appropriate experience of working in a similar area of work.</p> <p>The post holder will need to demonstrate a high level of competence and independent standing in research by being nationally recognised within their area of discipline, publishing regularly in recognised appropriate journals.</p>



### Relationships and Contacts

The post holder will have a key responsibility to the principal investigator and contribute to reporting and liaison with the Centre Manager and centre partners. The post-holder will contribute to PhD research supervision and planning.

### Special Requirements

To be available to participate in fieldwork as required by the specified research project.

### 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.



### **Addendum to Role Profile**

<b>Job Title:</b>	Research Fellow in Computer Vision and AI (Research Fellow A)
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<p><b>Job Summary and Purpose:</b></p> <p><u>This information sheet should be read in conjunction with the accompanying generic Research Fellow RA1A Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to:</u></p> <p>Contribute to the EPSRC funded project DECaDE led by the University of Surrey with the University of Edinburgh and Digital Catapult.</p> <ul style="list-style-type: none"><li>(i) Lead research and develop novel methods for ensuring the authenticity of visual media - such as images, video, 3D of synthetic (generative AI) assets- by explaining algorithmically the provenance (origins) of that media.</li><li>(ii) Lead research to advance computer vision, machine learning for media provenance and forensics and for the creative attribution of media.</li><li>(iii) Lead research in computer vision and AI and implement software tools and libraries for use by researchers within the DECaDE partnership, including industry collaborators and contribute to open-source releases of those tools and libraries.</li><li>(iv) Lead and pro-actively engage with responsible and open research to ensure ethical, fair and inclusive design of computer and AI technologies for content authenticity and media forensics.</li><li>(v) Initiate, plan and lead collaboration with other staff on the project to develop pilot and proof-of-concept systems for media provenance and forensics, including interaction, with creatives and non-technical practioners in the social sciences, design, business and law schools.</li><li>(vi) Design and plan the development of tools and technologies to support content provenance technologies and their use in production with industry partners and collaborators.</li><li>(vii) Lead collaboration with other partnership researchers and creative professionals on the research, production and user evaluation of content authenticity and media forensics technologies.</li><li>(viii) Work with other researchers on the partnership to develop research software libraries and systems to facilitate reproducible research and public engagement.</li><li>(ix) Publish and present research in high-quality international journals and conferences.</li><li>(x) Onsite collaboration with project partners as required to conduct research and integrate tools and technologies for media provenance and content authenticity.</li><li>(xi) Contribute to participative research engagement events and activities with stakeholders.</li><li>(xii) Meet on a bi-weekly basis with DECaDE collaborators, contribute to partnership meetings and present results at other sites as required.</li><li>(xiii) Pro-actively organise and manage your own time and research-related activities.</li><li>(xiv) Report orally and prepare papers reporting progress and delivery of project outcomes, and be able to communicate at both technical and high-level for example with project research partners.</li><li>(xv) Perform any other duties associated with the project, as deemed appropriate to the grade by the Principal Investigator.</li><li>(xvi) Promote the research and activities of the project and the Centre for Vision, Speech and Signal Processing (CVSSP) in national and international forums.</li></ul>
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### **Main Responsibilities/Activities**

- Lead and undertake research in computer vision, and AI for ensuring the provenance and authenticity of visual media.
- Lead the design, development and evaluation of novel deep learning approaches to determine the provenance of media to cover topics such as generative AI / data attribution, and media forensics.
- Meet on a weekly basis on campus with CVSSP staff.
- Attend project meetings and present results at other sites as required.
- Lead collaboration with partners in design and development of tools, production, user-testing and evaluation of technologies for content authenticity and media forensics.
- Publish and present research in high-quality international journals and conferences.
- Give oral and written reports on project progress and outcomes. Report at both a technical low-level and conceptual high-level to a range of audiences including the public and industry.
- Lead the organisation, take part and deliver demonstrations of project progress and outcomes to a range of different audiences at events in-person and online
- Lead and pro-actively engage with open, responsible and inclusive AI research and data.
- Continually update knowledge and develop skills.
- Carry out routine administrative tasks associated with a specified research project, for example risk assessment of research tasks, organisation of project meetings and documentation. This will entail planning own day-to-day research activity within the framework of the agreed programme, dealing with problems that may affect achievement of research objectives and implementing procedures to ensure accurate and timely delivery.

### **Person Specification**

#### **The post holder must have:**

- PhD degree in computer vision, audio, machine learning or a related subject
- Track-record of publication in leading academic forums in computer vision and AI (CVPR, ICCV, ICLR, NeurIPS, ECCV, etc.)
- Experience in software development in topics such as computer vision, machine learning, deep learning or generative AI.
- Experience of collaboration and technology transfer to partners outside academia.
- Ability to work independently or in a team, excellent organisation and time management.
- Excellent writing and communication for varying levels of technical/non-technical audience.

#### **The post holder would ideally have:**

- Skills and experience of development using languages such as Python and C++ with relevant computer vision, signal processing, machine learning and/or deep learning tools (TensorFlow, PyTorch, Keras, OpenCV etc.).
- Experience in securing funding for research in computer vision, audio or machine learning
- A track record of publishing academic papers, open-source software tools and/or datasets.

### **Relationships and Contacts**

Direct responsibility to Principal Investigator John Collomosse and Project Partnership Co-Investigators. Informal enquiries are welcome and should be directed to Prof John Collomosse. [j.collomosse@surrey.ac.uk](mailto:j.collomosse@surrey.ac.uk)