

**Job Description**

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| **Job Title:** | Director of the Generative AI Laboratory and Chair in Generative Artificial Intelligence |
| **Department / School:** | School of Informatics |
| **Reports To:** | Head of School and dotted reporting line to Head of College |
| **Contract Duration:** | Five-year appointment to the position of Director of the Generative AI Laboratory; renewable by mutual agreement.Open ended appointment to Chair in Generative Artificial Intelligence. |

**Job Purpose**

Applications are invited from world-leading researchers for the recently established Chair in Generative Artificial Intelligence (AI) and Director of Generative AI Laboratory (GAIL), a new research laboratory being established by the University.

The Director will leverage the University’s and School’s existing research strengths, to build an international and world-leading reputation for GAIL in terms of research and translational activities in Generative AI. The Lab aims to exploit close synergies with other schools, centres and academics across the University and build partnerships globally. The Director will spearhead and shape the development of GAIL, supporting researchers at the start of their careers to tackle major AI challenges, and to link researchers across disciplines within the University. The successful applicant is expected to have a proven track record in AI research, knowledge exchange and impact activities in complex international and multi-stakeholder contexts and have demonstrable potential to inspire broader engagement of researchers with public and private stakeholders to co-produce solutions to major problems. The role requires significant co-ordination, support and leadership of researchers to achieve the objectives of GAIL.

The Director will act as ambassador for GAIL, raising its profile externally; establish the strategic direction of GAIL and spearhead development of new research and innovation programmes through the appointment and/or development of key staff; and will be expected to attract external funding, guide the development and implementation of outreach programmes, and contribute to the intellectual life of the University.

The successful applicant is expected to have a proven track record in a subfield of Generative AI, such as natural language processing including large language models, computer vision, and/or machine learning. GAIL will be hosted in the Edinburgh Futures Institute (EFI) innovation centre, reflecting the inter-disciplinarity and research translation aspect of the role; the candidate should have experience in one or more key application areas; examples would include communication, health and wellbeing, legal, medicine including drug discovery, software engineering, robotics, and code generation.

**Main responsibilities**

1. **Leadership and Management** (60%)

The Director will play a major role in establishing GAIL, which will support multidisciplinary research across Schools in the University of Edinburgh, harnessing academic staff expertise, and providing a skills pipeline of AI researchers at the forefront of AI. The Director will lead the co-production of outputs between researchers, stakeholders, and end-users, and build inclusive partnerships between the School of Informatics and the University, with businesses, NGOs, government departments and international organisations. Through accessing major and varied funding sources the Director will grow a community of researchers and knowledge exchange specialists within GAIL and foster innovation activities.

The specific responsibilities for this position are to:

* Establish a vision for a sustainable programme of research in the area of Generative AI that supports multidisciplinary research across the University, and oversee on its implementation;
* Mentor and manage academic and research staff, particularly early career researchers, to support the goals of GAIL;
* Spearhead large collaborative research grants and funding, such as those from UKRI/EPSRCSpearhead the integration of students from related postgraduate taught programmes with GAIL staff and activities, generating an alumni base for broader and longer-term impact
* Leverage Data Driven Innovation (DDI) investments (Innovation centres such as EFI, the Bayes Centre and the National Robotarium, and the Edinburgh International Data Facility),and the University’s world-leading research and teaching in a variety of disciplines to realise the impact of fundamental research across a variety of sectors;
* Work with the Centre for Technomoral Futures to influence public policies and standards, working with the AI community to provide guardrails for safe AI and ensure that the Lab is the go-to place for advice on safe and ethical AI;
* Work closely with industry, through significant strategic industry investments from companies looking to understand and invest in AI technologies;
* Spearhead and manage the transfer of relevant University research into effective knowledge for varied stakeholders, including coordination of activity that attracts stakeholders to liaise with GAIL. Particular focus will be on new products and services that address the needs of business, government and society;
* Work with our media and communications teams and be the public face for Generative AI at the University of Edinburgh, instigating and managing major outreach activities for societal benefit;
* Spearhead and manage continuing professional development activities relevant to GAIL’s mission for capacity building.
1. **Research** (40%)

Develop and deliver fundamental and applied research that complements and integrates with other appropriate research areas in GAIL and the School more broadly, including:

* Create, spearhead and participate in collaborative research projects within the University, in the UK and around the world, with academic researchers and industry researchers in the field;
	+ Build, spearhead and develop a vibrant and interactive group of research staff and students within the area of Generative AI;
	+ Develop graduating professionals and early career researchers, by means of undergraduate and postgraduate teaching, and doctoral training;
	+ Demonstrate and deliver internationally excellent research, with commensurate publishing activity;
	+ Generate UK and international external funding to support a personal research agenda;
	+ Maintain international research reputation through contributions to international research community (e.g. serving as reviewer, conference chair, editorship of journal etc.);
	+ Participate in knowledge exchange and innovation using established University policies and procedures.

**Key Contacts / Relationships**

* + **Within the School:** Head of School, Deputy Head of School, Director of Institute and academic colleagues within Institute and across the School. Line manage staff on research grants and supervise PhD and project students.
	+ **Within the University:** Collaborators within other Schools in interdisciplinary projects, contribution within College and University working parties/committees etc. as required. The Director of the Edinburgh Futures Institute and other innovation hubs as appropriate.
	+ **Outwith the University:** Academic and industrial colleagues, policy makers, funding agencies, media agencies, external sponsors and partners including local research organisations, international conference organising committees (serving as a Chair/committee member), acting as a figurehead in the research community (invited talks, keynotes etc.).

**Planning & Organising**

The postholder will take responsibility for the strategic planning and supervision of GAIL’s research programme and its translation into societal and economic benefits, identifying emerging opportunities and coordinating relevant action. The Director will be responsible forthe management and co-ordination of the efforts of GAIL within the framework of the School structure, and will drive the development and implementation of GAIL’s strategic plan, including the appointment of key staff and the development of new activities to build cohesion and identity. In addition, the Director will ensure that a range of communications platforms are used to spread information about GAIL and enhance its reach.

**Problem Solving**

The role involves significant application of prior knowledge and accumulated expertise to solve unique problems of a range of stakeholders associated with translating research into quantifiable outputs. The role involves the creation of new knowledge exchange by adapting knowledge and discoveries, and developing strategies for the application of these results towards key challenges in Generative AI.

**Decision Making**

The postholder will provide strategic direction and vision, bringing staff together to support a coherent research programme in Generative AI, including devising and implementing an appropriate strategy and implementation plan to build a high profile group of researchers. This is likely to include training in Generative AI and associated methodologies at a range of levels. The Director will drive efforts to identify what funding opportunities to explore and in which outputs and venues to present research, knowledge exchange and co-produced outputs, to demonstrate and maintain successful activity and advance the mission of GAIL.

**Knowledge Skills and Experience**

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| **Attribute** | **Essential** | **Desirable** |
| **Education, Qualifications & Training** | 1. PhD qualification in relevant subject.
2. Professional standing evidenced by international committee work, editorships, etc.
 | 1. A University teaching qualification.
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| **Knowledge & Experience** | 1. A demonstrated ability to grow and build a group of researchers with a clear and successful research agenda, evidenced by paradigm shifts in a particular field.
2. A demonstrated ability to influence, stimulate and inspire others – especially in supporting early career researchers and the development of multi-disciplinary research teams.
3. Sustained achievement in the advancement of knowledge and understanding or in professional application in the field of AI, evidenced by publication as first author and collaborative publications in high quality journals and international conferences, demonstrating a world-leading research reputation and profile.
4. A demonstrable sustained track record of attracting substantial research grant income and of industry engagement.
5. Outstanding contributions to research in AI through methods other than publication, which may include applied research, technology transfer, consultancy or advanced professional practice.
6. Excellent track record of contribution to student education at undergraduate or postgraduate level, and ability to engage with a range of teaching mediums including online.
7. Excellent communication, presentation and organisational skills and high proficiency in written and oral English language, including experience of engaging with a wide range of stakeholders.
 | 1. Experience of planning and directing curriculum development, including the use of innovative approaches to teaching.
2. Participation in public engagement activities including, for example, public talks and discussions, engagements in festivals and popular and specialist media.
3. Significant experience of working with industry and managing/maintaining growing industrial partnerships.
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**Job Context**

Generative AI is a class of AI algorithms and machine learning systems that can be used to generate various types of content including text, images, audio, video, computer code, and even gene and protein designs. It has been identified by [Gartner](https://www.gartner.com/en/doc/emerging-technologies-and-trends-impact-radar-excerpt) as one of the high growth areas in the next 6 years, as part of the productivity revolution. The ability to automatically generate content will revolutionise many industries, increase productivity and create and enhance areas of academic study. This has been evidenced by the explosion of SMEs using Generative AI for applications such as legal letter writing, composition of emails, reports, document summarisation, document editing, and translation of language-written instructions to computer code. Much of this activity was born out of the massive public and media interest in AI since the release of Large Language Models (LLMs), such as ChatGPT and Bard, in early 2023. However, off the back of these model releases, the community is scrambling to establish regulation and guardrails to ensure ethical and trustworthy AI. The UK is taking a lead on this endeavour through hosting the AI Safety Summit in November 2023.

2023 marks the 60th anniversary of Computer Science and AI at the University of Edinburgh (UoE), the first institution in Europe to establish a group working on AI research. Looking forward, the University views this post and the establishment of the Generative AI Lab as the perfect springboard to highlight our research talents, leadership and ambition in the critical area. By focusing on Generative AI, the aim is to create a unique ecosystem and infrastructure around (open source) Large Language Models, harnessing our expertise in Natural Language Processing (NLP) and Generation (NLG), as well as Speech Technology. Combining this with our expertise in Machine Learning, extensive compute and data facilities (such as Edinburgh Parallel Computing Centre (home to the £900m Exascale) and Edinburgh International Data Facility), and complementary centres such as Creative Informatics and the Centre for Technomoral Futures, we seek to rapidly make an impact in this fast-growing area through establishment of GAIL.

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