

JOB ADVERT

Position: Principal Researcher

Location: TII, Abu Dhabi, UAE

Technology Innovation Institute (TII) is a global independent research and development institute. Today, we are building a world-class community of multidisciplinary scientists and researchers transforming complex challenges into pioneering research and breakthrough technologies that help move society forward.

At TII, we help society to overcome its biggest hurdles through a rigorous approach to scientific discovery and inquiry, using state-of-the-art facilities and collaboration with leading international institutions. Our rigorous discovery and inquiry-based approach helps to forge new and disruptive breakthroughs in advanced materials, autonomous robotics, cryptography, cyber security, directed energy, quantum computing and secure systems.

AI and Digital Science Research Centre

The Artificial Intelligence and Digital Science Research Centre (AIDRC) is the machine learning powerhouse of TII. We work closely with other research centers to harness the full potential of AI across multiple domains — from healthcare and cybersecurity to government and advanced technology systems.

We incorporate core elements of intelligence (perception, sensing, planning, and language) in the ideation, design, and prototyping of next-generation systems with human-like intelligence. We build advanced AI computing and scalable AI-based software stacks and hardware systems to deliver significant enhancements in systems infrastructure.

Our AI researchers, scientists, and engineers collaborate to ensure innovative outcomes, from AI theory to AI technologies towards better intelligence.

Job description

We are seeking a Principal Researcher in Natural Language Processing (NLP) and Large Language Models (LLMs) to lead cutting-edge research initiatives and shape the strategic direction of AI innovation within the organization.

The successful candidate will combine deep technical expertise with research leadership, driving original scientific contributions while guiding teams of researchers and engineers. This role requires both visionary thinking and hands-on engagement in algorithm development, model innovation, and real-world deployment.

Tasks related to the job

Research Leadership

- Define and lead the research and strategy in NLP and LLMs aligned with organizational objectives.
- Formulate novel research directions and technical roadmaps that underpin future AI products and platforms.
- Lead division-wide initiatives to continuously assess and benchmark the state-of-the-art in NLP/LLMs across academia and industry.
- Identify strategic opportunities to differentiate the organization within the global AI landscape.

Scientific & Technical Excellence

- Design and conduct original research in AI, including NLP, LLMs, generative AI, deep learning, and multimodal systems.
- Develop, adapt, and improve advanced algorithms for large-scale language and multimodal models.
- Drive innovation in model architecture, optimization, training efficiency, and real-world deployment.
- Ensure research outcomes are translated into scalable prototypes and field-deployable technologies.

Team & Project Leadership

- Lead and mentor teams of NLP/LLM researchers, scientists, and engineers.
- Oversee multiple research projects, ensuring alignment with strategic priorities and timely delivery.
- Guide prototype development while engaging with internal engineering teams and external stakeholders.
- Foster a culture of excellence, collaboration, and scientific rigor.

Collaboration & External Engagement

- Collaborate with internal research centers, industry partners, academic institutions, and end-user communities.
- Present research outcomes through publications, technical reports, demonstrations, and conference presentations.
- Generate and lead proposals for new research programs and strategic initiatives.

Responsible AI & Governance

- Ensure adherence to ethical standards, responsible AI practices, and AI safety guidelines.
- Contribute to establishing best practices, shared infrastructure, and reusable research components across teams.
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Required qualifications and skills

- PhD in Computer Science, Artificial Intelligence, Mathematics, or a related field (strongly preferred).
- 12+ years of experience in AI research and development
- Deep expertise in NLP, Large Language Models, and generative AI.
- Strong understanding of modern AI architectures, training paradigms, and evaluation methodologies.
- Proficiency with Python
- Extensive experience with at least one major ML framework (PyTorch, TensorFlow, or equivalent).

Nice to have

- Patents
- Publications in top-ranking conferences/journals, such as ICML, Neurips, ICLR, KDD, VLDB, AAAI, NIPS, to cite a few.
- Experience in machine learning related competitions, such as Kaggle.

What We Offer:

We offer competitive salaries, a comprehensive benefits package, and the opportunity to work alongside some of the brightest minds in the AI industry. Our work culture is collaborative and inclusive, with a strong focus on innovation and personal growth.

We are an equal opportunity employer and value diversity. We do not discriminate on the basis of race, religion, color, national origin, gender, sexual orientation, age, marital status, veteran status, or disability status.

If you're excited about working on cutting-edge LLM technologies and want to make a significant impact on the AI field, apply today and help us shape the future of AI!