

Postdoctoral Fellowship in Artificial Intelligence Systems

The AI Research Unit (AIRU) at the University of Cape Town is looking to recruit an outstanding researcher to take up a postdoctoral fellowship in AI Systems. The position is attached to the DSI-NRF/UCT SARCHI Chair in Artificial Intelligence (AI) Systems hosted in the unit. The Chair conducts research on generic architectures and frameworks for human-centred AI systems with applications in health and wellbeing, earth observation, energy and finance. The research focus areas are:

- Spatial-temporal graph neural networks for continual learning from streaming sensor data
- Using knowledge graphs and ontologies in hybrid AI systems for scientific knowledge discovery
- Semantic AI-driven architectures for 3D digital twin applications, e.g. smart home and smart city applications

The researcher will work primarily under the supervision of the Chair holder, A/Prof Deshen Moodley, on projects related to the Chair. The researcher will interact with a diverse team of applied and theoretical researchers across AIRU's local and international research network, with opportunities to undertake short research visits to AIRU's collaborators based in Europe. More information about AIRU can be found on the AIRU website: <http://airu.org.za/>

Value and Tenure:

The value of the fellowship is between R 380 000 and R 420 000 per annum. The position is a full-time position based in Cape Town, and is tenable for two years initially for one year and renewable for a second year subject to adequate performance in the first year. Regrettably, no relocation expenses is available and the fellowship carries no benefits. A directive for tax exemption will be applied for by UCT on behalf of the successful candidate.

Conditions and Eligibility:

Both South African and foreign candidates are eligible. Applicants must have completed their doctoral study in the last five years. Applicants may not previously have held full-time academic posts.

- The applicant will be expected to have an outstanding profile in Computer Science or allied disciplines, with evidence of interest and an ability to undertake research in the above-mentioned field. Applicants with PhDs in Mathematics or Physics with experience in machine learning are particularly encouraged to apply.
- The successful candidate will be expected to publish at least one, but ideally two conference or journal publications during the fellowship tenure.

University of Cape Town

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- The successful candidate will be required to enter into a Memorandum of Agreement with the University of Cape Town and a Memorandum of Understanding with their Principal Investigator.

Application deadline and requirements:

The first deadline is **29 November 2024**. The call will remain open until a suitable candidate is found.

Applications must include the following:

- A covering letter explaining the candidate's suitability and experience, as well as their availability.
- A brief research proposal which also highlights how your expertise and interests aligns with the research focus of the Chair.
- The applicant's full curriculum vitae and a full list of publications.
- The names and contact details of at least two academics who have taught, supervised or worked alongside the applicant.
- Certified copies of all academic transcripts (undergraduate, Honours (if applicable), Masters (if applicable) and PhD).

Applications must be submitted to the AIRU administrator, Mrs Tharien Potgieter (tharien.potgieter@uct.ac.za). Enquiries about the position can be made to the Chair holder, A/Prof Deshen Moodley (deshen.moodley@uct.ac.za).

The University of Cape Town reserves the right to make no awards at all, to cancel the award if the conditions are not met, and to effect changes to the conditions of the award. The University of Cape Town reserves the right to disqualify ineligible, incomplete, and/or inappropriate applications.

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