AI for Cumulative Impact Assessment

Summary

The Estonian Maritime Academy, TalTech is inviting applications for a fully funded PhD position in the field of Artificial Intelligence (AI) applied to Cumulative Impact Assessment. The position is part of an interdisciplinary research initiative aimed at developing AI-driven methodologies to extract and analyze impact information from scientific publications, with a particular focus on environmental and marine sciences.

Research field:	Maritime studies
Supervisor:	Jonne Kotta
Availability:	This position is available.
Offered by:	School of Engineering Estonian Maritime Academy
Application deadline:	Applications are accepted between June 01, 2025 00:00 and June 30, 2025 23:59 (Europe/Zurich)

Description

Position Overview

The selected candidate will develop a **multi-modal AI model** to process and extract structured impact information from scientific literature. This research will integrate Natural Language Processing with environmental science data to enhance decision-making processes in habitat restoration and ecological assessments.

Key Responsibilities

- Develop and implement multi-modal AI models combining text, images, and tabular data from scientific publications.
- Design NLP-based pipelines for extracting and structuring impact-related information.
- Collaborate with domain experts in marine science to ensure AI models capture relevant ecological and environmental indicators.
- Publish research findings in top-tier conferences and journals.
- Engage in interdisciplinary collaboration within TalTech and external research partners.

Qualifications

The ideal candidate should have:

- A **Master's degree** in Computer Science, Artificial Intelligence, Machine Learning, Computational Linguistics, or a related field.
- Strong knowledge of **AI, NLP, and Machine Learning methodologies**.
- Experience in deep learning frameworks such as TensorFlow, PyTorch, or similar.
- Proficiency in Python and relevant NLP/ML libraries (Hugging Face Transformers, spaCy, Scikit-learn, etc.).
- Experience with information extraction, scientific text processing, or multimodal AI techniques.
- A **background in Marine Science or Environmental Science** is a strong plus.
- Excellent analytical, problem-solving, and communication skills.

What We Offer

- A fully funded PhD position for **four years**.
- A dynamic research environment with access to state-of-the-art computational resources.
- Collaboration with leading experts in AI, NLP, and Marine Science.
- Opportunities for international research exchange and conference participation.

Application Process

To apply, please submit the following:

- A cover letter detailing your research interests and qualifications.

- A CV, including publications (if any).
- Copies of academic transcripts and degrees.
- Contact details for two academic references.

Application Deadline: 30.06.2025
Expected Start Date: 01.09.2025

For inquiries, please contact Prof. Jonne Kotta at jonne.kotta@taltech.ee.

We look forward to receiving your application!

To get more information or to apply online, visit https://taltech.glowbase.com/positions/921 or scan the the code on the left with your smartphone.