

Attention

# MSc students!

Join our  
MSc student  
program!

Deltares

“ Are you passionate about tackling real-world water and environment issues with new technologies? ”

## Requirements

- **Enrolled in a relevant MSc program**  
software development, data science, earth observation, or innovative technologies for modeling or monitoring
- To facilitate collaboration with Dutch universities for our internship program, we encourage students who are currently enrolled in a Dutch university and residing in the Netherlands to apply.

Program duration is 6 – 9 months  
starting September 2024

Interning with Deltares means a monthly student allowance of €550 (depending on your study points), flexible working hours, and the chance to work alongside top researchers from a Triple A institute.

**Don't miss this unique opportunity to make a difference!**

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also our  
[website](#)



## Utilizing Machine Learning for more Effective Dredging - case study of Port of Rotterdam

### Contact

**Erik Hendriks**

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The thesis focuses on developing a machine learning model that provides new insights into the relationship between environmental variables and sedimentation volumes in ports. To maintain a safe navigable depth, dredging has to take place frequently. Therefore, the goal of this work is to enable more effective dredging in ports, ultimately leading to a reduction in greenhouse gas emissions.

The case study is the Port of Rotterdam, where local data is readily available. Each dredging trip conducted over the past years is documented in a database. You will combine this database with data from public sources and perform data processing. Ultimately, the machine learning model may be used to finetune dredging strategies and thus lead to more effective dredging operations.

## Developing a text mining toolbox for retrieving global groundwater data

### Contact

**Jude King**

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The master thesis aim to develop and implement text mining methods to extract structured information from unstructured literature related to groundwater and geology data. Text mining is a cutting-edge AI technology that can extract high-quality information from text. It uses natural language processing and machine learning methods to extract structured information from unstructured literature and makes semantic reasoning for knowledge discovery. Experts in groundwater modelling are involved to develop a generalized approach that can be applied to other parameters in future phases. Responsibilities encompass conducting literature reviews, analyzing existing text mining methodologies, refining parameterization, calibration, and validation of our global groundwater model through collaboration, and testing and validating developed tools against relevant datasets and benchmarks and finally documenting the workflow and presenting results.

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