## Overview challenges for students at Teqplay

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Thank you for your interest in an internship/graduation internship at Teqplay. We have listed exciting challenges for internships and graduation internships for <a href="https://example.com/hbo/hbp/lied-Science-below">hbb/Applied Science-below</a>. students and for <a href="https://www.hbb/Wo/University students">WO/University students</a> below.

Please take a look at our <u>website</u> for more information and send your application to <u>recruitment@teqplay.com</u> with the entry of the challenge(s) you're interested in.



## Challenges for HBO/Applied Sciences students

Challenge:	Analyzing and visualizing global data and information coverage of Port infrastructure
Subject:	Data analysis
Assignment:	Our solutions are used worldwide and we detect data about vessels globally.  To provide our customers with all needed information and insights, we have to know which ports we have already covered. Which events are covered in which areas?  Are we missing specific events in specific areas?
Field of study:	HBO Informatica
Who:	Internship

Challenge:	Enriching collected business data with Generative Al
Subject:	Generative Al
Assignment:	Our solutions are based on lots of different data. OCR (Optical Character Recognition) helps us to read data from documents, so we can put them in context and give our customers useful insights. However, sometimes it misses important data.  We'd like to explore the possibilities for an alternative, like chatGPT, to be used to fill in the missing gaps.
Field of study:	HBO Informatica
	HBO Technische Informatica
Who:	Internship and graduation internship

Challenge:	Connection between microservices
Subject:	Data infrastructure
Assignment:	We have a highly complex infrastructure with lots of microservices, internal tools and user facing systems. Most of these systems communicate and are reliant on each other. In the case of an outage, a ripple effect can occur. At the moment we mostly rely on the knowledge and experience of our developers to solve and stop those ripple effects. We need a tool that a) highlights outages to prevent a possible ripple effect on all connected systems and b) shares information with (new) people.
Field of study:	HBO Informatica
	HBO Technische Informatica
Who:	Graduation internship



Challenge:	Why is my ship floating around - can you recognize it with Machine Learning?
Subject:	Voyage movements and events
Assignment:	We collect data and combine it to tell the story of a vessel. Vessels sometimes behave oddly, vessels sail in front of a port before entering it. We try to detect this behavior, but haven't found the right way yet. Application of the right data analysis and machine learning could crack this puzzle. We're looking for a solution.
Field of study:	HBO Informatica
Who:	Graduation internship

Challenge:	How good are our estimates - validate estimates and actual
Subject:	Voyage movements and events
Assignment:	Our customers want to know when vessels arrive in the port. We estimate these arrival times. However, we are not measuring how good they are. We have all the data to do this, so we need help getting good insights in our accuracy of estimates.
Field of study:	HBO Informatica
Who:	Graduation internship

Take a look at our <u>website</u> for more information and apply today at <u>recruitment@teqplay.com</u>



## Challenges for WO/University students

Challenge:	Develop an economic model for costs and risks in port calling
Subject:	Cost model for port calling
Assignment:	In the transport of cargo the cost of the port call have a significant impact on the actual cost and risks. Eventually, this leads to higher costs of goods. The goal is to develop a model that provides insight in the exposure to cost and risk in a port call.  The model will support the users with insight in the exposure on different types of cost involved, related to the time needed in the port call (potentially taking into account the probability of events).
Field of study:	WO/University Economics/Econometrics
Who:	Graduation Internship

Challenge:	Develop a model for a feasible distribution of cost / benefits of Virtual Arrivals
Subject:	Virtual Arrival
Assignment:	Virtual arrival is a hot topic in the maritime industry, in the current contracts the SFTW (Sail Fast Then Wait) behavior is strongly encouraged. However, what is needed to make terminals, shipping lines and others change this behavior and collaboratively plan Virtual Arrivals. In order to change the behavior it requires new contractual agreements, including the split of the savings/cost. In this research you will have a look at what has been researched and you are strongly invited to develop a model that encourages the behavior of virtual arrival for all parties involved.
Field of study:	WO/University Economics/Econometrics
	Master in Supply chain management
	Master Shipping & Transport
Who:	Graduation Internship

Challenge:	Who pays for the new emissions regulations and who is at risk?
Subject:	Emissions
Assignment:	New regulations to reduce greenhouse emissions have been introduced. The exact allocation of the emissions is not yet 100% decided upon. In this explorative research we are looking to understand the regulations and create a model that helps the actors to understand their exposure.
Field of study:	WO/University Economics/TBM-TIL
Who:	Graduation Internship



Challenge:	Emission Breakdown (behavior, steps in the supply chain)
Subject:	Emissions
Assignment:	Emissions heavily depend on the actual behavior of vessels. We have a database that provides insight in the actual behavior of vessels, on voyages and in port. We are looking for a model that supports the users in understanding the emissions in each of the steps of the process.
Field of study:	WO/University Economics/TBM-TIL
Who:	Graduation Internship

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