Background
Nowadays around 45% of the vessels on the European waterways sail empty. Shareship is an innovative startup that aims to increase the overall utilization rate of barges in the industry by using algorithms to optimally assign ships to (dry bulk) cargos. Therefore, Shareship has put effort in digitizing the planning and collecting and interpreting ship-positioning data to support the process from planning to administration of barge shipping. In this way Shareship can contribute to the competitiveness of the barge shipping industry through cost-efficiency and minimizing the environmental footprint.

To optimize the scheduling process and improve the interpretation of data for analysis and advising, Shareship wishes to develop tooling to provide (predicted) sailing times for certain routes and ship-types, based on interpretation of historical AIS data. The output would be used for the scheduling process, (strategic) network analysis and advising skippers on their sailing speed based on benchmarking.

In cooperation with CWI, Shareship offers the opportunity for a Master student to develop a tool “Navigator” supporting the following use-cases.

1. Provide more accurate forecasts for expected transport times which will increase accuracy and usefulness of the planning and scheduling tools.

2. Keep track of performance statistics of ships and compare them to benchmarks that are acquired by analyzing available data.

3. Advise skippers on ideal sailing speed in order to minimize waiting times (e.g. for bridges or sluices) and fuel usage.

The student’s help is expected to contribute to Shareship’s ambition: transforming the inland shipping industry. This project can be divided in multiple subprojects, scoping is dependent on the student’s ambition. Given the subject’s relevance for Shareship, there will be sufficient business and technical support.
Requirements

The ideal candidate for this thesis:

1. has reached the masters phase of a study in mathematics, econometrics, data science or a subject closely related to this
2. is strongly analytical, a conceptual thinker
3. is eager to “learn and discover”
4. possesses good interpersonal skills
5. has no problem with implementing own ideas in a, to be determined, programming language

Compensation

The student will receive an internship contract via Shareship and will receive a standard internship compensation per month.

For more details about the assignment, please mail or phone Dr. Elenna Dugundji, e.r.dugundji@vu.nl, 06 514 59 117.