PipeChain®
RELEASING SUPPLY CHAIN POWER

About PipeChain

PipeChain is a software company with cloud-based services for connected supply chains and applications for automated order and delivery processes. We are ready for the next step in our product development of automated processes and are launching an AI-project with focus on our greatest customer segment, the automotive industry.

The Project

Today companies within a supply chain share more information than ever, but the full potential of this new wave of cooperation is yet to be unleashed.

As the link between different parties in the supply chain, PipeChain has access to large amounts of data that can be very valuable in statistical data analysis.

With this project we want to show the benefits that can be created by AI and ML within supply chains. We want to prove our thesis within two key areas:

- Delivery forecasting (Order and forecasts gathered within one interchange message)
- Shipments (in relation to the delivery forecasts).

Within the above processes the project will focus on structured data with the help of ML to create better decision making.

A known problem in the automotive industry is the sometimes-low accuracy of delivery forecasts. This leads to higher costs for the suppliers as they need compensate for changes to the forecast. With ML we aim to create better conditions for the suppliers and lower the total cost for the entire supply chain.

This AI-project is done in collaboration with:

MA-system - specialists in Supply Chain Management
Tenfifty - experts in Machine Learning
Chalmers University
Key customers of Pipechain

By joining us you will meet and interact with many different parties within a supply chain and will be part in developing the foundation for a future ML application designed for the customers' needs.

Your work

A major part in the project will be to evaluate which data is appropriate and desirable results from the customer perspective.

We want the master thesis to discuss the following areas:

- Which values can be created through AI and how can it be measured?
- Which training data is needed and how do we handle flawed data?

It is also appreciated if you want to consider:

- Should the model be based on Bayesian networks, Random forest or other appropriate ML-models?
- How should the model be constructed?

The thesis and scope of the project will be discussed together with you and the Division of Supply and Operations Management, Chalmers, to the set the final goal of the project.

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Who are we looking for?

We would like to see that you are studying Supply Chain Management, Industrial Engineering, or a similar field of study. You could also be a combination of SCM-student and Data Science student. It is important that you understand how supply chains work, have an interest in Machine learning and see its great potential to optimize supply chains. We especially encourage female applicants.

- The project is appropriate for 2 students.
- The project period is from December 2020 to May 2021
- The project will be supervised by the Division of Supply and Operations Management, Chalmers

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