Data Decypher – Sievo

*Graphs can show but only words can explain*

**INTRODUCTION**

We at Sievo help our clients, such as Carlsberg, Fazer, GoDaddy and Deutsche Telekom, to translate massive amounts of (purchase) data to insightful analytics. Our software processes billions of rows of data each year, we have thousands of users in almost every country in the world, and are one of the best places to work in Finland.

We present attractive dashboards to our customers who then interpret the data on their own. Interpreting charts requires some talent and skill and creating them also requires some talent and skill.

What if we design software that can translate charts to natural language and natural language to charts? This would then make deciphering the message hidden in charts much easier and also make asking questions to the data-set easier.

"December saw that highest revenue generated by total sales with 200% Year on Year growth."

"Show me total sales with year on year growth."

**PROJECT**
The goal of the project is to create a service which interfaces with our Business Intelligence platform and provides narratives (natural language generation) for charts and/or also interprets human narratives to create charts on the fly.

December saw the highest revenue generated by total sales with 200% Year on Year growth.

**TOOLS AND TECHNOLOGY**

You are free to suggest the languages, libraries and tools you deem most suitable. It would be ideal though if the data decypher can run as a microservice, exposing its capabilities as an API set. Data Decypher also needs to work with the pre-defined API’s of Sievo’s BI engine which are well documented. Here at Sievo we encourage developers to adapt to modern day software architecture utilizing advanced capabilities of public cloud (AWS or Azure) offerings. We have in house expertise on Python for natural language processing and data science. If you decide to choose Python you will have access to our experts as well.
REQUIREMENTS FOR THE STUDENTS

We challenge you to be bold and take initiative in how you design the Data Decypher, but we will be there to help you when needed.

Programming skills will be super essential but also understanding of statistics and at least basic knowledge how data can be visualized. If you have plotted charts in excel before one could say you have some knowledge of data visualization.

On a whole, the difficulty of the project can range from moderate to demanding, depending on how the project is scoped to suit the team’s ambition and timetable.

LEGAL ISSUES

The results are published under open source license MIT. Signing the non-disclosure agreement (NDA) included in the Aalto’s contract template is required.

CLIENT

Sievo is a fast growing software company serving an international client base. Our software development is based on agile methods and we always aim at producing high quality code. Our HQ is located right in downtown Helsinki and we have an office in Chicago as well. We have an international customer base and a diverse workforce with employees from over 22 countries.

The outcome of the project has real value to our business and we are committed to supporting the project team as required.

Sievo will have the following representatives in the project:

- Biju Krishnan: Product Owner
- Matan Shenhav: Technical support

All in all we want to make the project as convenient as possible for all parties. Our office is located in the centre of Helsinki and it will be available for meetings and other occasional needs for working space. We will take care of your blood sugar levels by providing food for
different meetings. Our fridges are also well stacked with the products of our many customers from the brewing industry. The successful completion of the project will be celebrated – but, how, it’s up for you to choose.