Optimization in Insurance

Report of Contributions

Contribution ID: **1** Type: **not specified**

How to model and implement a centralized data warehouse to spend more time on analyzing data than gathering it?

Wednesday, 23 June 2021 09:00 (50 minutes)

Most of the teams that focus on data-intensive work (analytics, modelling, optimization, etc.) still spend most of the work on data preparation and data cleaning. On the other hand, there is a huge spike in the number of new cloud applications that organizations use to manage their business. Because of all this, the need for data integration and a holistic view of all data is even more crucial for managing the business. The presentation will focus on different possibilities of how to model the data warehouse (dimensional, anchor, 3NF form) and how the whole implementation process looks like. With over 15 years of experience building complex data warehouses in financial institutions, we will share some of the best practices, things we learned the hard way, and future trends.

Presenter: JERKIČ, Grega (In516ht)

Contribution ID: **3** Type: **not specified**

Implementing data science in insurance

Wednesday, 23 June 2021 11:10 (50 minutes)

Real-life examples of insurance companies and their path of implementing data science in their business. Where they began and which business problems they covered, and what are future challenges and opportunities that will give them an advantage in the market. Why the path was hard and slow and what has changed in recent years will be covered.

ID

Presenter: ŠERBEC, Iztok (In516ht)

Contribution ID: **4** Type: **not specified**

The role of knowledge graphs in insurance

Wednesday, 23 June 2021 14:20 (50 minutes)

In the lecture, we present knowledge graphs in insurance and the algorithms on how to build them, algorithms to inferring missing facts. We focus on healthcare-related knowledge graphs occurring in insurance.

ID

Presenter: KLABJAN, Diego (Northwestern university)

Contribution ID: **5** Type: **not specified**

Optimization of reinsurance

Wednesday, 23 June 2021 12:00 (50 minutes)

Reinsurance is a key risk mitigation tool, particularly in general insurance. An insurer will cede some profit to a reinsurer to reduce the risk of its insurance result and make insurance results more stable. Different types of reinsurance can be used for different insurance segments. For each reinsurance, the insurer needs the type of reinsurance to decide how much of the risk will be transferred. Reinsurance optimization is a procedure that tries to find optimal reinsurance structure for each insurance segment so that the optimal balance between the cost and risk transfer is achieved and the expected total insurance result volatility is within the company risk limits.

ID

Presenter: HAREJ, Bor (Prime Re Solutions)

Contribution ID: **7** Type: **not specified**

Use of Sub-Weekly Updated Satellite Imagery for Assessment of Damage - A Short Course on Earth Observation Methods and Data

Wednesday, 23 June 2021 09:50 (50 minutes)

In recent years the Earth Observation (EO) sector is going through a revolution due to data volume and quality growth, a significant part of which is available as open data. The European Copernicus mission provides new data covering the globe every 1-5 days, including multi-spectral imaging and synthetic aperture radar data. This provides unprecedented insight into the Earth and is also useful for assessing damage due to floods and drought, hail and other extreme weather events. For every event, one can get data about the immediate aftermath and the data prior, making it possible to estimate the state of the ground before and recovery afterwards. We will guide users through the basics of EO data and demonstrate how they can easily access the data. This will be followed by examples and conclude with a brief introduction to how advanced machine-learning models can be used to analyse the data on a large scale.

https://apps.sentinel-hub.com/sentinel-playground/
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https://race.esa.int/
https://sentinelhub-py.readthedocs.io/en/latest/index.html
https://eo-learn.readthedocs.io/en/latest/index.html
https://github.com/sentinel-hub/eo-learn-workshop
https://github.com/sentinel-hub/eo-flow

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Presenter: REPŠE, Marko (Sentinel Hub)