

Projektförslag för kandidatarbete inom Elektroteknik (E2):

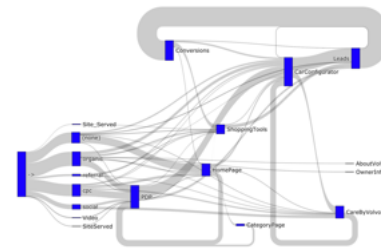
Global Capstone Project with Chalmers, Berkeley and Volvo Cars

EENX15-21-40 Analysis of online user behavior using Recurrent Neural Network

Background

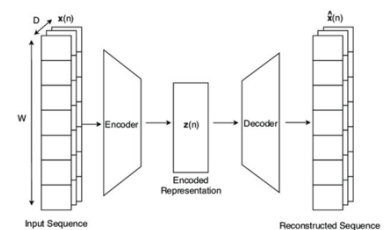
Many of today's organizations aspire to become data-driven companies. A success factor is the ability to translate insights from data analytics - to understand how customers think and behave based on their online shopping patterns. While conventional methods rely on gathering insights through questionnaires and surveys, we propose a machine learning method to automate this process.

With this insight, we can attract and engage new customers by creating a personalized customer experience and retain existing customers. According to Forbes, 78% of companies are developing a consumer data platform, with 44% of those stating that their data platform is improving customer loyalty.



Problem description

1. Perform exploratory data analysis on a subset of anonymized online consumer data.
2. Design and implement a sequence learning model, for example exploring the latent variables in LSTM, and Auto encoders.
3. Extract consumer insights and describe user behavior according to subjective properties such as for example “low motivation”, “enthusiast”, “interested in SUV” and “committed visitor”
4. Successful projects may include a consumer insights report, accompanied by the ML model with convincing results.



The main goal is to **design** and **build** a sequence learning model, such as the LSTM Recurrent Neural Networks and to analyze and the model behavior.

Målgrupp: Vi uppmuntrar blandning från alla målgrupper:
TKAUT, TKMAS, TKELT, TKDAT, TKTFY

Gruppstorlek: 3–6

Antal grupper: 1

Requirements:

- Good working skills in programming, preferably in Python. Fundamental machine learning training and some insights to data science methods.
- Interest in statistical machine learning, deep learning, big data and descriptive analytics.

Volvo Contacts/Supervisors:

Göteborg: Srikar Muppirisetty

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Målgrupp:

TKAUT Z, TKMAS M, TKELT, TKTFY F och TKDAT D

Gruppstorlek

3 – 6 studenter

(Projektet kan ej fördubblas)

(Handledare och Examinator kan meddelas senare när projekten är tilldelade)