Master Thesis – Applying Analytics to Interpret and Visualize Large Volumes of Product Performance Data

Background
Covering solutions from 2G, 3G, 4G to 5G, Ericsson aims at delivering industry-leading performance on its hardware and is therefore always working on ways to find improvements. Understanding how the different software components use hardware resources is a key business advantage from both manufacturing and operating standpoints. Ericsson provides solutions based on capacity characteristics tested and verified in-house by several teams. In order to quickly and continuously improve our products, it is extremely important to have detailed knowledge about our product performance and reliability.

Thesis Description
A large amount of data is collected regarding the performance of our products and a common challenge is realizing how to interpret and fully utilize all this data. The focus of this thesis will be to bring together the vast quantity of data collected from our products and present them as useful information.

The following steps are envisioned as part of the thesis work:

- Identify how to configure data to enable a fair and reasonable comparison of product tests.
- Find improvements to our current method of presenting data and suggest other possible methods.
- Implement a solution that will visualize the results including showing key data value anomalies.

The thesis will be concluded with a result presentation for the Ericsson team.

Qualifications
This project aims at students majoring in statistical analysis or data analytics (with focus on statistics), coding experience in Python is not necessary but preferred.

Extent
1 student, 30hp

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2020

Keywords
Python, SQL, Excel, Telecommunication, Optimization, Analysis, Statistics, Analytics, 5G Ran Performance

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