



Space(wo)men wanted

For decades now we've been making space missions possible: enterprises that are as spectacular as they are successful. Today we're the global leader for attitude and orbit control sensors for satellites and optical instruments for Earth observation.

We – a subsidiary of Airbus Defence & Space - are one of the leading suppliers for space industry and we are reliable partner in national as well as international projects: High quality awareness and well-qualified employees meet a strong future-proof technological basis in an innovative environment.

Bachelor thesis

This Topic is based on a cooperation between Jena-Optronik and the DLR institute of data science in Jena. Supervision is shared between both partners while main focus and support for this thesis will be at Jena-Optronik.

Your mission:

A serial production of sensors creates a large amount of test data that needs to be handled and analyzed. Based on an evolving management approach, all current test data is stored in binary files while only a small subset of key parameters are stored in a relational database. Analyses beyond the scope of these extracted parameters have to process the binaries files themselves, which is rather time and resource consuming.

The goal of this thesis is to compare different strategies to bring most of the test data into the relational world. This shift in storage technology is expected to reduce the amount of storage needed and to enhance support for ad-hoc analysis of the test-process. You are expected to develop a (series of) benchmark(s) where different strategies and parameters can be tested and compared.

This includes, but is not limited to, different relational schemas to represent the test data, a comparison between row and column stores, or the rate in which data is stored and retrieved. The pros and cons of these results shall be evaluated. Finally, the developed schema should be applied to an existing open source DBMS. This benchmark and the subsequent comparison will serve as decision support in developing Jena-Optronik's future strategy in test data management.

Your profile:

- You study computer science, engineering or natural sciences
- You communicate confidently in German as well as in English and follow up your objectives responsibly.



Your application:

You are interested in grasping the opportunity to be employed at a dynamic and innovative company. Please apply using the reference number P1/2019 Jena-Optronik GmbH, Sabine Oppitz, Otto-Eppenstein-Straße 3 in 07745 Jena or via e-mail: bewerbung@jena-optronik.de

We are looking forward to getting to know you!

