

Master Thesis - “Improving the analysis process” (30 credits/20 weeks – X student)

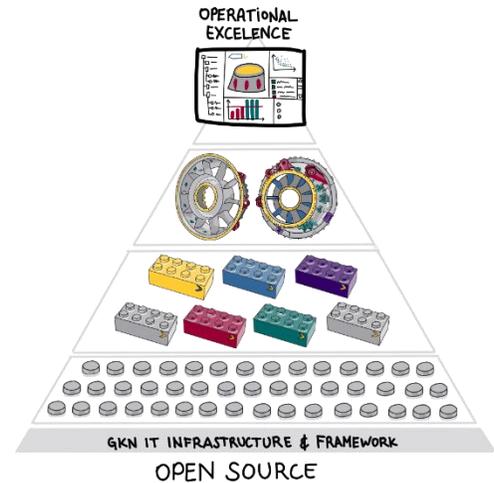
Project Background

GKN Aerospace designs, manufactures and maintains components for all the major aircraft manufacturers. Structural components, engine parts, advanced systems, wiring... you name it!

At the Hot and Cold Structures department in Trollhättan, the structural analysis engineers ensure that jet engine components will be able to withstand the demanding flight loading requirements.

We want to improve the way we currently manipulate data, so we are looking at other disciplines such as Data Science using the Python Ecosystem. We believe that the current open source tools can help us to interact with data at a higher level. This will enable us to step up our capabilities, while decreasing the analysis time and reduce the opportunities for silly human errors.

We have started this journey already, and it is full of possibilities! Are you interested in defining how analysis engineers should work in 2022?



Assignment Description

You will spend some time at the beginning learning our requirements and proposed ways of working. You will then perform a research in the open source community and will be able to contribute to the improvement processes. Those ways of working will be pushed into our quality system as Engineering Practices at the end of your time with us.

You will also discover and study the existing in-house modules. They will inspire you to create new modules to work with real mechanical engineering projects. Depending on your pace, you will develop one or more new modules.

If you are willing to, you could drive the implementation of the new infrastructure. You would interact with the IT engineers to ensure this system meets our needs.

We really believe that this can be a step change in the way we currently do things. Do you want to help deciding how this will look like?

Qualifications

Required:

- Student enrolled in an Engineering M.Sc.
- Passionate about improving
- Basic programming experience in Python

The following qualifications will make you more likely to be the ideal candidate:

- Student with a basic background in mechanical, aerodynamic or thermal analysis
- Have used any of the following tools:
 - numpy, scipy or pandas for data analysis.
 - Sphinx for process documentation
 - git and GitHub or Azure DevOps for code management
- Contributed to an open source project.

Apply by

Send your resume and cover letter to Alex Pradas (alejandro.pradas@gknaerospace.com) and Najeem Muhammed (Najeem.Muhammed@gknaerospace.com)

Interviews will be held continuously.