Master / Bachelor Thesis

Application of Microservices Architectures for Special Domains

Microservices Architectures (MSA) have been one of the fastest-rising trends in the development of enterprise applications and enterprise application landscapes. Various studies investigated the general challenges in implementation of MSA in literature and practice. However, specific analysis in each domain is still missing.

In this study, we want you to investigate the application of MSA in a certain domain based on your interest e.g., Industrial Automation and address the open challenges and synthesize a solution for one of those challenges. For a master thesis, an evaluation should measure the quality of the achieved results using suggested and implemented solutions. Since the topic of microservices has a vast domain of applications, you have the flexibility to choose and analyze interesting domains with a high level of freedom.

Scope of the project

Starting with a literature analysis and asking the experts, general requirements of an MSA-enabled in the targeted domain should be gathered and protocolled. Afterward, an analysis of state of the art should prove the needs and shortages of existing features in the domain. Suggestions and Ideas should be developed for overcoming these shortages. This also includes the extension of existing solutions or implementation of new solutions. An evaluation against the general requirements mentioned above is preferred when possible.

Your Profile:

- You are enrolled at the University of Lübeck as a master or bachelor student.
- You are interested in exciting research projects.
- You like to work in a team, are flexible and reliable.
- You have good programming skills in Java.

How to apply:

Write us an email at javad.ghofrani@uni-luebeck.de tol arrange a meeting and talk.

The language and the start time of the project is optional.