Chair for Integrated Systems
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Assistant (Student), Master's Thesis

Software Partitioning and Scheduling (at GE Aviation)

This work is an offer of **General Electric Aviation** supervised at TUM LIS.

About GE Aviation

GE Aviation Munich is a R&D center of excellence and is in the heart of southern Germany, on the Garching campus of the Technical University of Munich. This creates a unique blend for our engineers to be in a university setting, while performing research and development in a world-class industrial environment that is dedicated to bringing innovative technologies to market. Within the R&D community, the center maintains close partnerships with numerous universities, research institutions and technology companies in Germany and abroad.

Role summary

GE Aviation is investigating the use of modern multi-core architectures. You will migrate existing singlecore software to a multi-core platform. This work focuses on partitioning of existing software, deployment and schedule synthesis to maximize processor utilization. This work can be done either as a student job or for your master thesis.

Responsibilities

- Determine tasks that can be run in parallel without impacting data flow and introducing data latency.
- Develop an automated method for partitioning, deployment and scheduling based on a variety of tools.
- Demonstrate scalability, usability and determinismof the selected solution.

Expected Qualifications

- Good Java/C/C++ Skills
- Good understanding of task scheduling
- First experience with development of toolchains
- Self-motivated, structured work style and good communication skills
- Fluency in English
- Good academic track record

Contact

Supervisor at GE Aviation: Alexander Walsch

Online application form

Advisors

Thomas Wild
Alexander Walsch (General Electric)