Invitation to the Oral Examination – Department of Computer Engineering

For the occasion of his examination for a Doctoral Degree,

Rafael Christopher Stahl

will present his dissertation on

Code Optimization and Generation of Machine Learning and Driver Software for Memory-Constrained Edge Devices

on **01.08.2024** at **15:00 h**

Attendance to the presentation is open to the public. The presentation will be in English.

The candidate, all members of the Examination Committee, and authorized examiners of the TUM School of CIT are invited to the presentation and subsequent oral examination.

The presentation and subsequent examination will take place in person at the

80333 Munich, Theresienstr. 90, Building N1, Seminar room N2128.

Examination committee:

Chair: **Prof. Dr. Andreas Herkersdorf**

First Examiner: **Prof. Dr.-Ing. Daniel Müller-Gritschneder**

Second Examiner: **Prof. Andreas Gerstlauer, Ph.D**

Munich, the 11th of July 2024

Mailing list:

Members of the examination committee

Doctoral candidate

CIT staff

Abstract:

" This thesis contributes methods for optimization and generation of software for compact electronic edge devices, crucial across diverse applications. Emphasizing memory constraints as pivotal factors influencing cost and power consumption, the methods presented within this thesis enhance machine learning applications, both on individual devices and within distributed scenarios. Moreover, these methods also improve driver software with memory reductions and automation."