

Mr. **Marcel Carlé**

born on **May 26, 1990**
in **Essen**

has passed the **Master Examination**

in accordance with the
provisions of the syllabus for **Computer Science**

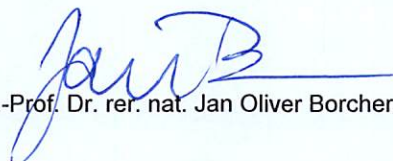
and has obtained the overall mark **good (2,5)**

Master Thesis		Credits	Mark
Topic of Master Thesis	Improving Vehicle Diagnostics in Service Stations with Wearable Devices	30	good (2,2)
Examiner	Rumpe		

Aachen, May 17, 2017

Chair of the
Examination Board

Univ.-Prof. Dr. rer. nat. Jan Oliver Borchers



Marcel Carlé born on May 26, 1990 in Essen has achieved the following individual results:

	Credits	Mark
Theoretical Computer Science	12	satisfactory (3,1)
Foundations of the UML	6	satisfactory (3,3)
Static Program Analysis	6	satisfactory (3,0)
Software and Communications	24	satisfactory (3,2)
Generative Software Engineering	6	satisfactory (2,7)
Object Oriented Software Construction	6	satisfactory (3,3)
Model-Based Software Engineering	6	sufficient (3,7)
Multimedia Internet Technology	6	satisfactory (3,3)
Data and Information Management	6	satisfactory (3,0)
Advanced Data Mining Algorithms	6	satisfactory (3,0)
Applied Computer Science	12	satisfactory (2,7)
Designing Interactive Systems I	6	satisfactory (2,7)
Designing Interactive Systems II	6	satisfactory (2,7)
Business Administration	18	satisfactory (2,8)
Development of IT Standards	6	good (2,0)
IT and Organisation	6	satisfactory (2,7)
Project Management	6	sufficient (3,7)
Labs, Seminars, Colloquiums	18	good (1,6)
Seminar II - Software and Communication	4	good (2,0)
Seminar I - Data and Information Management	4	good (2,0)
Software Lab Software and Communication	7	very good (1,0)
Colloquium - Software and Communication	3	good (2,0)

This certificate has also been issued in a German version.
A credit point represents an estimated workload of approximately 30 hours.