EXAMINATION CERTIFICATE

This is to certify, that

Lorenz Maria Hofmann-Wellenhof,
born on 21 November 1994 in Graz,

has duly completed the coursework and assessments prescribed by the study and examination regulations for the degree programme

M.Sc. Computer Science,

and achieved an overall average mark of
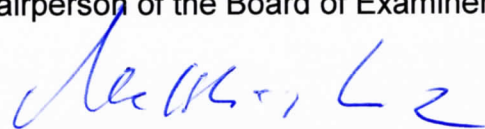
1,8 (good).

Dissertation topic (in original language):

„Software Design Patterns For Machine Learning Workflows"
(supervisor: Prof. Dr. M. Granitzer).

The individual assessments are listed on the reverse of this certificate.

Passau, 7 January 2020
The Chairperson of the Board of Examiners

Prof. Dr. Matthias Kranz

The individual results are as follows:

Description	Mark	ECTS
Module group: Information and Communication Systems		**8,0**
Text Mining Project	1,0	8,0
Module group: Programming and Software Systems		**44,0**
Software Product Line Engineering	2,3	6,0
Advanced Software Product Development	2,7	6,0
Practical Parallel Programming	4,0	7,0
Functional Programming	3,3	6,0
Loop Parallelisation	2,7	6,0
Virtual Machines and Runtime Systems	3,0	6,0
Software Engineering II	1,0*	7,0
Module group: Intelligent Technical Systems		**16,0**
Image Processing	1,3	7,0
Learning Theory	1,0*	9,0
Module group: IT Security and Reliability		**11,0**
Advanced IT Security	2,0	6,0
Wireless Security	2,7	5,0
Module groupe: General area		**7,0**
Software Project Management	1,0*	7,0
Compulsory Modules		**8,0**
Seminar	1,3	5,0
Presentation MSc Thesis	1,3	3,0
Master's thesis	1,3	27,0

Overall average mark and ECTS credits	**1,8**	**121,0**

Selected specialisation: **Module group: Programming and Software Systems**

Calculation of overall average mark:
Upon successful completion of the master's examination, a final grade (overall average mark for the programme) is determined on the basis of the marks awarded for all graded modules, as required by the programme-specific study and examination regulations, in line with §9 (1) 1, and the mark awarded for the master's thesis; the final grade is calculated from the weighted average by ECTS credits. (§22 (4) of the general study and examination regulations for master's degrees of the Faculty of Computer Science and Mathematics)
The pass marks are as follows: 'with distinction' up to 1,1   'very good' up to 1,5;   'good' up to 2,5;   'satisfactory' up to 3,5;   'sufficient' up to 4,0.
Please note that the comma is the decimal separator in the German notation.

*   Recognised assessment from a course of study undertaken at another higher education institu-tion
**   This mark is not included in the calculation of the overall average mark
***   Ungraded assessment