

Master's Thesis Application

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born on: 10.03.1998

Matr. No.: 4 9 7 9 9 4 9

Study Course: Distributed Systems Engineering

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Subject:

User-Driven Constraint Modelling for Entity Models at Runtime

The SCIS confirms that the applicant has earned 74 ECTS credits so far.

25.10.22 *Inna Karachuk*
(Date, Signature) Technische Universität Dresden
Fakultät Informatik
Prüfungsamt

We agree on the above mentioned subject and we will prepare a review each:

1st Reviewer: Prof. Dr. Uwe Aßmann
(always include academic title)

Professorship: Chair of Software Technology

☐ I supervise the thesis work

2nd Reviewer: Dr. Sebastian Götz
(always include academic title)

Professorship: Chair of Software Technology

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Datum: 2022.10.12
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Korr. JK
04.04.2023

Start date: 01. November 2022

Submission deadline: 11. April 2023

The Examination Board accepts the application:

Date: 25.10.2022

Chair of Examination Board: *[Signature]*

Aufgabenstellung für die Masterarbeit

Name, Vorname: Skripin, Anton

Studiengang: Distributet Systems Engineering

Matr. Nr.: 4 9 7 9 9 4 9

Thema:

User-Driven Constraint Modelling for Entity Models at Runtime

Zielstellung :

Introduce the concept of end-user driven constraint modelling for models at runtime and why expressive but flexible constraint specifications are required in such a context. Conduct background research on models at runtime, models for entity representation focusing on deep models and constraint languages. Subsequently, compare and analyse state of the art constraint-, query- or modelling languages regarding their suitability to formulate useful restrictions on an variant-aware entity model at runtime. Evaluate both their technical properties and useability regarding end-user programming. The problem of parallel existing entities of different variants has to be addressed. Choose two out of the compared techniques and implement them prototypically in form of an extension of the modicio framework. In the course of this step, extend and modify the techniques to be able to be applied by end-users at runtime. For final evaluation, compare both realisations and find exemplary scenarios. Come to a conclusion which technique is more suitable for the purpose of end-user programming at runtime.

Betreuer: M.Sc. Karl Kegel

Verantwortlicher Hochschullehrer: Prof. Dr. Uwe Aßmann

Institut: Lehrstuhl Softwaretechnologie

Beginn am : 01. November 2022

Einzureichen am : ~~11. April 2023~~
04.04.2023

Korr. 1k

Unterschrift des verantwortlichen Hochschullehrers

Verteiler: 1 x SCIS, 1x HSL, 1x Betreuer, 1x Student



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