Employment

Full Professor
Full Professor
Engineering of Software-Intensive Systems
Eindhoven University of Technology
1 Jul 2020 → present

Research outputs

**Deductive Software Architecture Recovery via Chain-of-thought Prompting**

**Design thinking and creativity of colocated versus globally distributed software developers**

**Challenges in Software Architecting**

**Process Mining from Jira Issues at a Large Company**

**The influence of software design representation on the design communication of teams with diverse personalities**

**Evaluating the layout quality of UML class diagrams using machine learning**

**Role stereotypes in software designs and their evolution**

**Human values in software development artefacts: A case study on issue discussions in three Android applications**

**Automatic Anti-Pattern Detection in Microservice Architectures Based on Distributed Tracing**
Automatic Validation of Technical Requirements for a BIM model using Semantic Web Technologies  

Guiding Peer-feedback in Learning Software Design using UML  

Towards a human values dashboard for software development: An exploratory study  

FeatureVista: Interactive feature visualization  

Integration of design smells and role-stereotypes classification dataset  

From Prose to Prototype: Synthesising Executable UML Models from Natural Language  

Joint workshop on foundations and practice of visual modeling (FPVM) and data for model–driven engineering (Data4MDE)  

Software engineering whispers - The effect of textual vs. graphical software design descriptions on software design communication  

Preface to 2nd International Workshop on Analytics and Mining of Model Repositories (AMMoRe 2020)  

Sustainable Capacity Building in Software Engineering Research in Africa - The Example of the BRIGHT Project  


Does UML modeling associate with lower defect proneness? a preliminary empirical investigation  
Preface to the first international workshop on analytics and mining of model repositories

The quest for open source projects that use UML: Mining GitHub

Timed-Gamma and its coordination language

Towards automated software architectures design using model Transformations and evolutionary algorithms

COTS selection best practices in literature and in industry

Empirical analysis of the relation between level of detail in UML models and defect density

Encrypted shared data spaces

Managing the quality of UML models in practice

PARS : a process algebraic approach to resources and schedulers

Second International Workshop on Model Size Metrics

Workshops at MoDELS 2008
Adaptive runtime fault management for service instances in component-based software applications

An experimental evaluation of self-managing availability in shared data spaces

A qualitative investigation of UML modeling conventions

A survey of the practice of design — code correspondence amongst professional software engineers

A visualization framework for task-oriented modelling using UML

CARAT: a toolkit for design and performance analysis of component-based embedded systems

Enhancing end-to-end QoS for multimedia streaming in IMS-based networks

Exploring performance trade-offs of a JPEG decoder using the deepcompass framework

Facilitating mobile service provisioning in IP Multimedia Subsystem (IMS) using service oriented architecture

Four automated approaches to analyze the quality of UML sequence diagrams

Improving architectural quality properties through model transformations

Interactive views to improve the comprehension of UML models - an experimental validation
Language-based access control approach for component-based software applications

Message from the track Chairs - Component-based software engineering

MetricViewEvolution: UML-based views for monitoring model evolution and quality

Runtime failure detection and adaptive repair for fault-tolerant component-based applications

Supporting task-oriented modeling using interactive UML views

Adaptive runtime fault management for services in component-based software applications

A language-based access control approach for component-based software applications

An experimental investigation of UML modeling conventions

A process for resolving performance trade-offs in component-based architectures

A toolkit for design and performance analysis of real-time component-based software systems

Component-based development process and component lifecycle

Compositional performance analysis of component-based systems on heterogeneous multiprocessor platforms
Effects of defects in UML models

Effects of defects in UML models: an experimental investigation

Experimentally investigating the effectiveness and effort of modeling conventions for the UML

In practice: UML software architecture and design description


Quality-oriented design space exploration for component-based architectures

Refactoring architectural style using KWIC as a case-study

Self-adjusting component-based fault management

Self-adjusting component-based fault management

Workshop proceedings of the 1st workshop on quality in modeling

A component framework for consumer electronics middleware

An exploratory study on the industrial use of UML: improving control over design quality
Combining metrics data and the structure of UML models using GIS visualization approaches

Component-based development process and component lifecycle

Component-based development process and component lifecycle

Component-based development process and component lifecycle

Dynamically adapting tuple replication for managing availability in a shared data space

Experimentally investigating effects of defects in UML models

Finding inconsistencies between views using relation partition algebra

Generalizing consistency checking between software views

GSpace maakt omgeving intelligent met gedistribueerde data

Managing model quality in UML-based software development

Modelling of input-parameter dependency for performance predictions of component-based embedded systems

Monitoring the quality of UML architecture and design models using MetricView (Poster)

On Design-Time Performance Predictions of Object-Based MPEG-4 Video Applications
Predictable component-based software design of real-time MPEG-4 video applications

Quantitative techniques for the assessment of correspondence between UML designs and implementations

Software architecture refactoring of UML models

Towards proving preservation of behaviour of refactoring of UML methods

Understanding the architecting process

Version-centric visualization of code evolution

Visual exploration of combined architectural and metric information

An empirical assessment of completeness in UML designs

Dynamic adaptation of data distribution policies in a shared data space system

Exploiting differentiated tuple distribution in shared data spaces

GSpace : tailorable data distribution in shared data space systems

Integrity management in component based systems
Introduction from Session Chair "Component models for dependable systems"

Investigations in applying metrics to multi-view architecture models

Konsistenz und Vollständigkeit industrieller UML Modelle

Maintaining terminal integrity and context-aware reconfiguration

PARS: A Process Algebra with Resources and Schedulers.

Predicting real-time properties of component assemblies: a scenario-simulation approach

Prediction of run-time resource consumption in multi-task component-based software systems

Software engineering reference framework

Towards predicting real-time properties of a component assembly

An empirical investigation in quantifying inconsistency and incompleteness of UML designs

Customizable data distribution for shared data spaces

Prediction of run-time consumption in multi-task component-based software systems
Scenario-based prediction of run-time resource consumption in component-based software systems

Separation of concerns in the formal design of real-time shared data-space systems

Use cases as workflows

A dynamic upgrade mechanism based on publish/subscribe interaction

Aspects + GAMMA = AspectGAMMA: A formal framework for aspect-oriented specification

Estimation of static memory consumption for systems built from source code components

Evaluation of static properties for component-based architectures

Separation of quality concerns in the development of distributed real-time systems
Software architecture analysis tool : software architecture metrics collection

Using Aspect-GAMMA in the design of embedded systems (Extended abstract)

ActiveLink : an embedded systems solution for generic cross-platform communication

A framework for formal component-based software architecting

A framework for formal component-based software architecting

Component-based software engineering for resource-constraint systems : what are the needs?

Software engineering with formal methods : the development of a storm surge barrier control system - revisiting seven myths of formal methods

Components are from Mars

Towards component-based architecting for resource constraint systems

Lessons from the application of formal methods to the design of a storm surge barrier control system

Activities
Second International Workshop on Analytics and Mining of Model Repositories (AMMoRe)
Önder Babur (Chair), Loek G.W.A. Cleophas (Chair), Michel R.V. Chaudron (Chair), Ludovico Iovino (Chair) & Dimitris Kolovos (Chair)
16 Oct 2020
International Workshop on Analytics and Mining of Model Repositories (AMMoRe)
Önder Babur (Organiser), M.R.V. Chaudron (Organiser), Loek Cleophas (Organiser), Davide Di Ruscio (Organiser) & Dimitris Kolovos (Organiser)
16 Oct 2018

Jacquard 2005, Zeist, The Netherlands
Michel Chaudron (Speaker)
3 Feb 2005

Jacquard 2005, Zeist, The Netherlands
Michel Chaudron (Speaker)
3 Feb 2005

Michel Chaudron (Organiser)
11 Jul 1999

Projects
"Trust4All"
Lukkien, J. J., Verhoeven, P. H. F. M., Bondarau, E. & Chaudron, M. R. V.
1/07/05 → 1/10/07