

Mobile: +44(0)7722405474  
E-mail: [mhelvens@gmail.com](mailto:mhelvens@gmail.com)  
Web: [www.mhelvens.net](http://www.mhelvens.net)  
GitHub: [mhelvens](#), [open-physiology](#), [QubitDigital](#)

Gender: Mal  
Nationality: Dut  
Marital status: Sing  
Birth-date: 26-9-1986



# Curriculum Vitæ

## *Michiel Helvensteijn*

### Education

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- 2009 – 2014 • PhD in Computer Science at the CWI and Leiden University
- 2007 – 2009 • Master of Science in Computer Science at Leiden University (*cum laude*)
- 2004 – 2007 • Bachelor of Science in Informatica at Leiden University (*cum laude*)
- 1998 – 2004 • Voorbereidend Wetenschappelijk Onderwijs at Alfrink College Zoetermeer
- 1999 – 2000 • MBO Algemene Ondernemers Vaardigheden at the NHA
- 1997 – 1998 • MBO Praktische Informatiekunde 1 at Stichting Facta

### Professional Experience

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- 2017 – ... • Senior Software Engineer at Qubit
- 2015 – 2017 • Academic Software Engineer at UCL
- 2014 – 2015 • Postdoctoral Researcher & Developer at Leiden University
- 2013 – 2014 • Software Developer at the CWI
- 2012 – 2013 • Research Assistant at Leiden University
- 2009 – 2012 • Research Assistant at the CWI
- 2007 – 2009 • Student Assistant for Jobmotion, Leiden University (see also [Teaching Experience](#))
- 2005 – 2007 • Software Engineer for Carlo Roosen Studio
- 2003 – 2005 • Webdevelopment and Webdesign on freelance basis

### Teaching Experience

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★ notable

- 2013 ★ Lecturer on modern web development for Studievoordigheden at Leiden University
- 2013 ★ Lecturer on Android development for Challenges of Computer Science at Leiden University
- 2012 ★ Lecturer on Android development for Studievoordigheden at Leiden University
- 2011 – 2012 • Teaching Assistant for Programmeren & Correctheid at Leiden University
- 2011 ★ Lecturer on Qt development for Studievoordigheden at Leiden University
- 2010 ★ Teacher of Hoare logic for Programmeren & Correctheid at Leiden University
- 2008 – 2009 • Student Assistant for Challenges in Computer Science Seminar at Leiden University
- 2008 – 2009 • Student Assistant for Programmeren & Correctheid at Leiden University
- 2008 • Student Assistant for Compiler Construction at Leiden University
- 2007 – 2008 • Student Assistant for Programmeermethoden at Leiden University

### Peer-reviewed Publications

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- 2016 • B. de Bono, *M. Helvensteijn*, N. Kokash, I. Martorelli, D. Sarwar, S. Islam, P. Grenon, P. Hunter: Requirements for the formal representation of pathophysiology mechanisms by clinicians, in *Interface Focus*, issue 6:2 [doi](#)
- 2016 • *M. Helvensteijn* and F. Arbab: Toward a Formal Foundation for Time Travel in Stories and Games, a chapter in “Theory and Practice of Formal Methods”, *Lecture Notes in Computer Science*, pp. 261–276, [doi](#)

- 2015 • M.M. Bonsangue, *M. Helvensteijn*, J.N. Kok and N. Kokash: Action Systems for Pharmacokinetic Modeling, a chapter in “From Action Systems to Distributed Systems: The Refinement Approach”, published by CRC Press
- 2015 • B. de Bono, S. Safaei, P. Grenon, D.P. Nickerson, S. Alexander, *M. Helvensteijn*, J.N. Kok, N. Kokash, A. Wu, T. Yu, P. Hunter and R.A. Baldock: The Open Physiology workflow: modeling processes over physiology circuitboards of interoperable tissue units, in *Frontiers in Physiology* [doi](#)
- 2014 • B. de Bono, P. Grenon, *M. Helvensteijn*, J. Kok and N. Kokash: ApiNATOMY: The Generation of Interactive Circuitboard Views of Complex Physiology Knowledge, in the Proceedings of the Virtual Physiological Human Conference
- 2014 • B. de Bono, P. Grenon, *M. Helvensteijn*, J. Kok and N. Kokash: ApiNATOMY: Towards Multiscale Views of Human Anatomy, in the Proceedings of the 13th International Symposium on Intelligent Data Analysis, pp. 72–83 [doi](#)
- 2014 ★ *M. Helvensteijn*: Abstract Delta Modeling: Software Product Lines and Beyond, PhD Thesis, defended in 2014 [doi](#)
- 2014 • *M. Helvensteijn*: The `pkgloader` and `lt3graph` Packages: Toward simple and powerful package management for L<sup>A</sup>T<sub>E</sub>X, in TUGboat, the Communications of the T<sub>E</sub>X Users Group, issue 35:1, 2014
- 2013 • R. Hähnle, *M. Helvensteijn*, E.B. Johnsen, M. Lienhardt, D. Sangiorgi, I. Schaefer and P. Wong: HATS Abstract Behavioral Specification: The Architectural View, FMCO 2011 postproceedings [doi](#)
- 2012 • F.S. de Boer, *M. Helvensteijn*, J. Winter: A Modal Logic for Abstract Delta Modeling, in the Proceedings of the 16<sup>th</sup> International Software Product Line Conference - Volume 2, pp. 45–52 [doi](#)
- 2012 • *M. Helvensteijn*: Dynamic Delta Modeling, in the Proceedings of the 16<sup>th</sup> International Software Product Line Conference - Volume 2, pp. 127–134 [doi](#)
- 2012 • *M. Helvensteijn*: Abstract Delta Modeling: My Research Plan, in the Proceedings of the 16<sup>th</sup> International Software Product Line Conference - Volume 2, pp. 217–224 [doi](#)
- 2012 ★ D. Clarke, *M. Helvensteijn*, I. Schaefer: Abstract Delta Modeling, in *Mathematical Structures of Computer Science* special issue: Objects and Services [doi](#)
- 2012 • *M. Helvensteijn*: Delta Modeling Workflow, in the Proceedings of the 6<sup>th</sup> international Workshop on Variability Modelling of Software-intensive Systems, pp. 129–137 [doi](#)
- 2012 • *M. Helvensteijn*, R. Muschevici, P. Wong: Delta Modeling in Practice, a Fredhopper Case Study, in the Proceedings of the 6<sup>th</sup> international Workshop on Variability Modelling of Software-intensive Systems, pp. 139–148 [doi](#)
- 2010 • D. Clarke, *M. Helvensteijn*, I. Schaefer: Abstract Delta Modeling, in the Proceedings of the 9<sup>th</sup> international conference on Generative Programming and Component Engineering; (ACM SIGPLAN), pp. 13–22 [doi](#)
- 2008 ★ *M. Helvensteijn*: Applying Data Mining to the Study of Joseki, in *Artificial Intelligence in Theory and Practice II*; (Boston: Springer), pp. 87–96 [doi](#)

## Awards & Honors

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- 2014 • Won 1<sup>st</sup> prize at the ng-europe 2014 Royal Hackathon for best use of Pusher [www](#)
- 2013 • 1<sup>st</sup> place at Startup Weekend Enschede 2013 [www](#)
- 2009 • Cum Laude Master’s Degree in Computer Science
- 2007 • Cum Laude Bachelor’s Degree in Informatica
- 2005 • Jong Talent Aanmoedigings Prijs ‘Informatica & Technische Informatica’ from the Koninklijke Hollandse Maatschappij der Wetenschappen [www](#)

## International Visits

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### Conferences

- Apr 2016 • FdB60: Celebration Event – Eindhoven, The Netherlands

## International Visits

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Oct 2014	• 13 <sup>th</sup> IDA Conference	– Leuven, Belgium
Oct 2014	• 1 <sup>st</sup> ng-europe Conference	– Paris, France
Oct 2013	• Tissue KM Workshop	– Brussels, Belgium
Sep 2012	• 16 <sup>th</sup> SPLC Conference	– Salvador, Brazil
Jan 2012	• 6 <sup>th</sup> VaMoS Workshop	– Leipzig, Germany
Oct 2010	• 9 <sup>th</sup> GPCE Conference	– Eindhoven, The Netherlands
Sep 2008	• IFIP 20 <sup>th</sup> World Computer Congress	– Milan, Italy

### *Project Meetings*

Sep 2016	• CHIC Working Meeting	– Saarbrücken, Germany
Aug 2014	• BioJS Hackathon	– Munich, Germany
Sep 2011	• 3 <sup>rd</sup> Annual HATS Meeting	– Oslo, Norway
May 2011	• HATS Working Meeting	– Leuven, Belgium
Sep 2010	• 2 <sup>nd</sup> Annual HATS Meeting	– Kaiserslautern, Germany
Aug 2010	• HATS Working Meeting	– Oslo, Norway
Oct 2009	• HATS Working Meeting	– Leuven, Belgium
Sep 2009	• 1 <sup>st</sup> Annual HATS Meeting	– Gothenburg, Sweden

### *Research Visits*

May 2013	• Visit to Katholieke Universiteit Leuven	– Leuven, Belgium
Dec 2012	• Visit to Katholieke Universiteit Leuven	– Leuven, Belgium
Jul 2012	• Visit to the University of Bologna	– Bologna, Italy
Nov 2010	• Visit to Katholieke Universiteit Leuven	– Leuven, Belgium
Dec 2009	• Visit to Chalmers University	– Gothenburg, Sweden

### *Research Schools*

Aug 2010	• Marktoberdorf Summer School	– Marktoberdorf, Germany
Feb 2010	• SYANCO Winter School	– Berlin, Germany

## Refereeing Experience

2016	• FdB60, Celebration event for Frank de Boer's 60th birthday
2015	• Elsevier Journal 'Journal of Logical and Algebraic Methods in Programming'
2015	• Elsevier Journal 'Science of Computer Programming'
2014	• Elsevier Journal 'Journal of Logical and Algebraic Methods in Programming'
2014	• Springer Journal 'Software and Systems Modeling' Special Issue (×2)
2013	• HATS International School on Formal Models for Components and Objects Postproceedings
2013	• Elsevier Journal 'Science of Computer Programming' Special Issue
2012	• 5 <sup>th</sup> IPM International Conference on Fundamentals of Software Engineering (×2)
2012	• 28 <sup>th</sup> Symposium On Applied Computing
2012	• 10 <sup>th</sup> Conference on Formal Methods for Components and Objects, postproceedings
2012	• 14 <sup>th</sup> Conference on Coordination Models and Languages (×2)
2011	• 27 <sup>th</sup> Symposium On Applied Computing
2011	• 2 <sup>nd</sup> International Conference on Formal Verification of Object-Oriented Software (×2)
2011	• 8 <sup>th</sup> International Symposium on Formal Aspects of Component Software
2011	• 2 <sup>nd</sup> International Conference on Complex Systems Design & Management
2011	• 15 <sup>th</sup> CSI International Symposium on Computer Science and Software Engineering
2011	• 4 <sup>th</sup> IPM International Conference on Fundamentals of Software Engineering
2010	• 8 <sup>th</sup> IEEE International Conference on Software Engineering and Formal Methods
2009	• 7 <sup>th</sup> IEEE International Conference on Software Engineering and Formal Methods

## European Projects

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- 2014 – 2016 • DDMoRe: The Drug Disease Model Resources consortium, supported through the **IMI** by the 7<sup>th</sup> Framework Programme of the EC and the **EFPIA** [www](#)
- 2009 – 2013 • HATS: Highly Adaptable and Trustworthy Software using Formal Models, supported by the 7<sup>th</sup> Framework Programme of the EC within the **FET** scheme [www](#)

## Miscellaneous Academic Activities

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- 2013 • Initiation / organization of a weekly group meeting for the FM research group at the CWI
- 2012 • Local organization for the 6<sup>th</sup> IFIP International Conference on Theoretical Computer Science
- 2011 – 2012 • Organization of the biweekly ACG colloquium at the CWI
- 2010 – 2012 • Organization of three separate peer-reviewed deliverables for the HATS project

## Followed Courses

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- Nov 2012 • ‘Writing an Excellent Research Grant Proposal’ at Leiden University
- Oct 2012 • ‘Intellectual Property’ at Leiden University
- Oct 2012 • ‘The Art of Presenting Science’ at the CWI
- Feb 2012 • ‘Effective Communication’ at Leiden University
- Feb 2012 • ‘Time Management and Personal Efficiency’ at the CWI
- Nov 2011 • ICT.OPEN: an IPA Research School event
- Oct 2011 • ‘Write it Right’ at the CWI
- Apr 2011 • IPA Lentedagen: an IPA Research School event
- Nov 2010 • IPA Herfstdagen: an IPA Research School event
- Apr 2010 • IPA Lentedagen: an IPA Research School event

## Open Source Projects

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- 2017 – ... • **boxer**: a JavaScript library for dragging / resizing / rotating / nesting SVG boxes [www](#)
- 2014 – ... • **delta.js**: an implementation of delta modeling for JavaScript [www](#)
- 2014 – ... • **graph.js**: a graph datastructure for JavaScript [www](#)
- 2014 – ... • **pkgloader**: a  $\text{\LaTeX}$  package for managing the options and loading order of packages [www](#)
- 2014 – ... • **delta-modules**: an implementation of delta modeling for the  $\text{\LaTeX}$  language [www](#)
- 2013 – ... • **lt3graph**: a graph datastructure for the  $\text{\LaTeX}3$  programming environment [www](#)
- 2013 – ... • **underoverlap**: a  $\text{\LaTeX}$  construct for partly overlapping math decorations [www](#)
- 2012 – ... • **withargs**: a  $\text{\LaTeX}$  construct for locally passing token-lists as **#i** arguments [www](#)
- 2011 – 2014 • Delta Profiles: a smart, modular profile manager for Android based on Delta Modeling [www](#)
- 2008 – 2009 • Mist: the design of a high level programming language [www](#)