

Curriculum Vitae

Mikkel Nylander Bundgaard

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Resume

I have a 4-year PhD from the IT University of Copenhagen within programming languages and models for mobile and distributed systems. The past two years I have worked as a researcher within the theoretical foundation of web-services and business processes. I am looking for a challenging job within software development in areas with complex problems, where my professional knowledge can be used.

From my education and prior working experiences I have a vast technological knowledge. Moreover, I have a lot of experience with understanding of complex problems and how to pedagogically communicate this understanding. To my personal qualifications belong that I am responsible, thorough, and always interested in learning something new and in improving my technical and personal skills.

Education

2001 – 2005 **MSc in Information Technology**, *IT University of Copenhagen*. (The thesis was also my halfway report in my 4-year PhD.)

Focus: Advanced courses and projects within programming languages, parallel systems, and algorithms and data structures.

Grade point average (weighted): 11.0

1998 – 2001 **BSc in Computer Science**, *Roskilde University*.

Focus: Basic Studies in Natural Sciences with focus on mathematics and computer science, especially programming languages, databases, networks, protocols and distributed systems.

Grade point average (weighted): 10.9

1994 – 1997 **Mathematical general certificate**, *Falkonergaardens Gymnasium og HF*.

All grades according to the old Danish 13-scale (see <http://www.ciriusonline.dk/default.aspx?ID=3572>).

Work Experience

- 2007 – 2009 **PostDoc**, *IT University of Copenhagen*.
- Transferring of results and techniques obtained in PhD to new research area in business processes and web-services.
 - Teaching PhD-students.
- 2003 – 2007 **PhD in Computer Science**, *IT University of Copenhagen*. Title: Semantics of Higher-Order Mobile Embedded Resources and Local Names.
- Researching programming languages and models for mobile and distributed systems.
 - Teaching and supervising MSc students.
- 2005 – 2006 **Marie Curie Fellow** (5 months), supported by the EU project DisCo, in *Department of Informatics, University of Sussex, United Kingdom*.
- Researching type systems and obtaining experience with foreign research environment and culture.
- 1999 – 2003 **Production Consultant**, *TDC* (prior *Tele Danmark*) in: Sales & Service, Operational Control — Forecast, PSDF.
- Developing applications for planning and statistics of staffing allocation in call-centres and the danish directory enquiry (Oplysningen).
 - Optimising and automating working procedures in call-centres.
- 1998 – 2003 **Freelance Consultant**. For smaller companies and public institutions (especially within sales and employment agencies).
- Automating Microsoft Office, especially the programs Access and Excel.
 - Developing MS SQL databases with front-ends in Visual Basic.

Voluntary Work

- 2002–2002 Member of the executive committee of the Students Union, IT University of Copenhagen.
- 2002–2002 Member of the study board, IT University of Copenhagen.
- 2001–2002 Member of the Internet Technology committee, IT University of Copenhagen.
- 1999–1999 Intro supervisor, Basic Studies in Natural Sciences at Roskilde University.

Personal Information

- Marital status I am married to Nynne Nylander Bundgaard and together we have Anna who is one and a half years old.
- Spare time I love sports, and I play soccer twice a week in my childhood club BK FIX. Besides this I am a faithful fan of American football. I love to travel and I have travelled much, both as part of my PhD and as a private person.
- Languages Danish: mother language. English: fluent. German: basic knowledge. Scandinavian: basic knowledge.
- IT I have a wide range of technical knowledge about IT, especially about programming languages (Java, Visual Basic, and Java Script) and databases.

Research Area

High-level programming languages, models and types for mobile and concurrent systems.

Teaching and Supervising

- Supervised PhD seminar in: “Process Calculi for Concurrency and Mobility” and “Advanced Seminar on Semantics and Types”.
- Taught MSc courses in: Concurrent, Distributed and Mobile Systems, Introduction to Programming, and Introduction to Object Oriented Programming.
- Supervised MSc projects within the following areas: XML, Servlets og JSP, parallel, distributed and mobile systems, Java programming and search engines.
- Member of the National Teaching Network in Model-Based Design for Concurrency (supported by IT-vest).

Publications

I have coauthored 7 refereed journal, conference, or workshop papers, and 7 technical reports and unrefereed publications.

Peer reviewed journal papers

- Mikkel Bundgaard, Thomas Hildebrandt, and Jens Chr. Godskesen. A CPS encoding of name-passing in higher-order mobile embedded resources. *Theoretical Computer Science*, 356(3):422–439, 2006.

Peer reviewed conference and workshop papers

- Mikkel Bundgaard, Arne J. Glenstrup, Thomas Hildebrandt, Espen Højsgaard, and Henning Niss. Formalizing higher-order mobile embedded business processes with binding bigraphs. In *Proceedings of the 10th International Conference on Coordination Models and Languages (COORDINATION 2008)*, volume 5052 of *Lecture Notes in Computer Science*. Springer Verlag, 2008.
- Mikkel Bundgaard, Thomas Hildebrandt, and Espen Højsgaard. Seamlessly distributed and mobile workflow: or the right processes at the right places. In *Proceedings of the First Workshop on Programming Language Approaches to Concurrency and Communication-Entric Software (PLACES'08)*, pages 64–69. 2008.
- Mikkel Bundgaard, Thomas Hildebrandt, and Jens Chr. Godskesen. Modelling the security of smart cards by hard and soft types for higher-order mobile embedded resources. In *Proceedings of the 5th International Workshop on Security Issues in Concurrency (SecCo'07)*, volume 194 of *Electronic Notes in Theoretical Computer Science*, pages 23–38. Elsevier, 2007.
- Mikkel Bundgaard and Vladimiro Sassone. Typed polyadic pi-calculus in bigraphs. In *Proceedings of the 8th ACM SIGPLAN international conference on Principles and Practice of Declarative Programming (PPDP'06)*, pages 1–12. ACM Press, 2006.
- Mikkel Bundgaard and Thomas Hildebrandt. Bigraphical semantics of higher-order mobile embedded resources with local names. In *Proceedings of the Graph Transformation for Verification and Concurrency workshop (GT-VC'05)*, volume 154 of *Electronic Notes in Theoretical Computer Science*, pages 7–29. Elsevier, 2006.
- Mikkel Bundgaard, Thomas Hildebrandt, and Jens Chr. Godskesen. A CPS encoding of name-passing in higher-order mobile embedded resources. In *Proceedings of the 11th International Workshop on Expressiveness in Concurrency (EXPRESS'04)*, volume 128 of *Electronic Notes in Theoretical Computer Science*, pages 131–150. Elsevier, 2005.

Technical reports and non-peer reviewed papers

- Lars Birkedal, Mikkel Bundgaard, Søren Debois, Davide Grohmann, and Thomas Hildebrandt. Higher-order contexts via games and the Int-construction. Technical Report TR-2009-117, IT University of Copenhagen, 2009.
- Mikkel Bundgaard, Jens Chr. Godskesen, and Thomas Hildebrandt. On encoding the π -calculus in higher-order calculi. Technical Report TR-2008-106, IT University of Copenhagen, 2008.
- Mikkel Bundgaard, Arne John Glenstrup, Thomas Hildebrandt, Espen Højsgaard, and Henning Niss. Formalizing WS-BPEL and higher order mobile embedded business processes in the bigraphical programming languages (BPL) Tool. Technical Report TR-2008-103, IT University of Copenhagen, 2008.
- Mikkel Bundgaard, Thomas Hildebrandt, and Jens Chr. Godskesen. Typing linear and non-linear higher-order mobile embedded resources with local names. Technical Report TR-2007-97, IT University of Copenhagen, 2007.
- Lars Birkedal, Mikkel Bundgaard, Troels Christoffer Damgaard, Søren Debois, Ebbe Elsborg, Arne John Glenstrup, Thomas Troels Hildebrandt, Robin Milner, and Henning Niss. Bigraphical programming languages for pervasive computing. In *Proceedings of the 1st International Workshop on Combining Theory and Systems Building in Pervasive Computing*, pages 653–658, 2006.
- Mikkel Bundgaard and Thomas Hildebrandt. Bigraphical Semantics of Higher-Order Mobile Embedded Resources with Local Names. Technical Report TR-2005-70, IT University of Copenhagen, 2005.
- Thomas Hildebrandt, Jens Chr. Godskesen, and Mikkel Bundgaard. Bisimulation Congruences for Homer — a Calculus of Higher Order Mobile Embedded Resources. Technical Report TR-2004-52, IT University of Copenhagen, 2004.