

Curriculum Vitae

(((Claus Brabrand)))

PERSONAL INFO

Full name:	Claus Brabrand
Date of birth:	May 20, 1973
Nationality:	Danish

ADDRESS

Work:	IT University of Copenhagen Rued Langaards Vej 7 DK-2300 Copenhagen S Denmark
Home:	Kommendörsgatan 9c, Lgh 1001 211 50 Malmö Sweden
Phone (cell):	(+45) 51 50 45 42
Phone (work):	(+45) 72 18 50 76
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Email:	brabrand (at) itu (dot) dk
Homepage:	http://www.itu.dk/people/brabrand/

CURRENT POSITION

Sep.'07 - now:	Associate Professor, IT University of Copenhagen, Denmark
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RESEARCH INTERSTS

Computer Science:	Programming Languages (Design, Analysis, Implementation)
	Domain-Specific Languages (Design, Analysis, Implementation)
	Language Extension (Syntax and Transformation)
Educational Research:	Cognitive Processes (The SOLO Taxonomy)
	Incentive Structures (Constructive Alignment)

DEGREES

Ph.D. (2003):	(Computer Science) BRICS Int'l Ph.D. School, Aarhus University, Denmark
M.Sc. (1999):	(Computer Science) Aarhus University, Denmark

PH.D. DISSERTATION

Dissertation:	"Domain Specific Languages for Interactive Web Services"
Supervisor:	Michael I. Schwartzbach
Committee:	Peter Thiemann (Uni. Freiburg, Germany) Henrik Reif Andersen (ITU, Denmark) Mogens Nielsen (Aarhus Uni., Denmark)

GRANTS

2005 - 2006:	IT-Vest Grant (ca. 10,000 €) "National Teaching Collaboration for Model-Based Concurrency"
2003 - 2004:	Microsoft Grant (ca. 20,000 €) "Programmable .NET Services" (with C. Consel)
1999 - 2002:	Full Ph.D. Scholarship (ca. 125,000 €) BRICS Int'l Ph.D. School, Aarhus University, Denmark

STAYS ABROAD

June-Dec. 2010 (6 months):	Visiting Professor (sabbatical); Universidade Federal de Pernambuco (UFPE), Recife, Brazil
2003 - 2004 (1 year):	Post Doc; then CR2 Full-time Researcher INRIA Research Center, Bordeaux, France
June-Aug 2001 (3 months):	Summer Coop Researcher IBM T.J.Watson Research Center Hawthorne, New York, USA
1995 - 1996 (1 year):	ERASMUS Exchange Student (Computer Science) Université Louis Pasteur, Strasbourg, France

LANGUAGES

Danish:	Native
English:	Fluent
French:	Fluent
Portuguese:	Close to fluent
Italian:	Intermediate
Spanish:	Intermediate
German:	Basic conversation
Norwegian:	Passive (understood / read)
Swedish:	Passive (understood / read)
Japanese:	Basics
Wolof:	Basics

PROGRAM COMMITTEE WORK

Co-Chair:	LDTA 2011 “Language Definitions, Tools, & Applications”
Co-Chair:	LDTA 2010 “Language Definitions, Tools, & Applications”
Jury Member:	DGS 2009 (educational film festival) “Det Gyldne Snit” (aka., “The Golden Ratio”)
Jury Member:	DGS 2008 (educational film festival) “Det Gyldne Snit” (aka., “The Golden Ratio”)
PC Member:	LDTA 2008 “Language Descriptions, Tools, & Applications”
PC Member:	LDTA 2007 “Language Descriptions, Tools, & Applications”

WORKING EXPERIENCE

2004 - 2007 (3½ years):	Assistant Professor BRICS/DAIMI, Aarhus University, Denmark
2003 - 2004 (1 year):	Post Doc; then CR2 Full-time Researcher INRIA Research Center, Bordeaux, France
June-Aug 2001 (3 months):	Summer Coop Researcher IBM T.J.Watson Research Center Hawthorne, New York, USA
Feb-Aug 1999 (6 months):	Research Assistant BRICS/DAIMI, Aarhus University, Denmark
May-Aug 1997 (4 months):	CGI Programmer, Tele Danmark Internet, Aarhus, Denmark

SUPERVISION

2010 -:	Co-supervising Márcio Ribeiro, Ph.D., Universidade Federal de Pernambuco (UFPE), Recife, Brazil.
2009 -:	Co-supervising Jakob G. Thomsen, Ph.D., Aarhus University, Denmark.
2003:	Co-supervised Fabien Latry, License, Ecole Normale Supérieure (ENSEIRB), Bordeaux, France.
2003:	Co-supervised Nicolas Salatge, DEA, Université Bordeaux I, France.
2002 - 2003:	Co-supervised Mads Vanggaard, M.Sc., Aarhus University, Denmark.

SCIENCE METRICS

H-Index:	11 (according to Google Scholar with “citation vector”: [118, 57, 57, 49, 39, 38, 37, 25, 18, 17, 12]
# Citations:	535 (according to Google Scholar)
# Publications:	21 (according to DBLP) Note: does not count educational publications.
# Publications by channel:	2 (books) 3 (keynote/invited publications) 9 (journal publications) 11 (conference/workshop publications)

TEACHING EXPERIENCE

Fall 2011:	“Introduction to Scripting, Databases, and System Architecture”, IT Uni. of Copenhagen
Spring 2011:	“Interactive Web Services using Java and XML”, IT University of Copenhagen
Spring 2011	“Global Software Development”, IT University of Copenhagen AND Universidade Federal de Pernambuco (UFPE), Recife, Brazil
Fall 2010:	“Data-Flow Analysis”, Universidade Federal de Pernambuco (UFPE), Recife, Brazil (3*3 hours)
Spring 2010, 2009, & 2008:	“First-Year Projects”, IT University of Copenhagen
Fall 2009, 2008, & 2007:	“Project-work and Communication”, IT University of Copenhagen
Spring 2011, 2009, & 2008:	“Advanced Models & Programs” (2*2 weeks), IT University of Copenhagen
Spring & Fall 2008:	“Seminar on Teaching & Learning” (8 hours), For faculty at IT University of Copenhagen
Fall 2009, 2008, 2007, & 2006:	“Programming Paradigms” (2 weeks), Aalborg University
Spring 2007, 2006, 2005, & 2004:	“Concurrency” (Model-Based Design for Concurrency), Aarhus University
Spring 2006:	“Programming Languages” (2 weeks), Aarhus University
Fall 2006 & 2005:	“Semantics” (Structural Operational Semantics), Aarhus University
Fall 2006:	“University Studies in Education” (3 days), For faculty at Aarhus University
Spring 2005:	“Macro Seminar”, Aarhus University
Fall 2004:	“Concurrency”, EVU, Aarhus University
Fall 2004:	“Web Technology”, Aarhus University
Spring 2002:	“Macro Languages” (2 weeks), Aarhus Uni.

AWARDS

Sep. 30, 2011	Best Tool Award at CBSOft 2011 for tool: “A Tool for Improving Maintainability of Preprocessor-based Product Lines”.
Nov. 13, 2006	Awarded “The Golden Ratio 2006” award for the 19’ short-film: “Teaching Teaching & Understanding Understanding”.

SHORT-FILM

Short-Film (20 minutes):	“Teaching Teaching & Understanding Understanding”
Involvement:	Script-Writer, Director, and Co-Producer.
Availability:	Available on DVD with Epilogue by Professor John Biggs.
Languages:	Available in English, French, Spanish, Italian, Portuguese, German, and Danish.
Publisher:	Aarhus University Press, Aarhus University, Denmark.
Statistics:	Sold 5,000+ DVD’s. Watched: 100,000+ times.
Homepage:	www.brics.dk/~brabrand/short-film/

BOOKS

Claus Brabrand & Eric Van Wyk (Eds.): "Proceedings of the Eleventh Workshop on Language Descriptions, Tools, and Applications", ACM Digital Library, 2011.

Claus Brabrand & Pierre-Etienne Moreau (Eds.): "Proceedings of the Tenth Workshop on Language Descriptions, Tools, and Applications", ACM Digital Library, 2010.

KEYNOTE PUBLICATIONS

Claus Brabrand & Bettina Dahl: "Analyzing CS Competencies using The SOLO Taxonomy", keynote abstract for Keynote talk at ITiCSE'09, Paris, France (July 6, 2009).

Claus Brabrand & Bettina Dahl: "Constructive Alignment and The SOLO Taxonomy: A Comparative Study of University Competencies in Computer Science vs. Mathematics", keynote paper for keynote talk at Koli'07, Koli National Park, Finland, (Nov. 16, 2007). Also in Conferences in Research and Practice in Information Technology, Vol. 88, 2008.

Claus Brabrand: "Constructive Alignment for Teaching Model-Based Design for Concurrency", invited paper for invited talk at TeaConc'07, Siedlce, Poland (June 25, 2007). Also in Transactions on Petri Nets and Other Models of Concurrency (ToPNoC), Vol. 1(1), Springer-Verlag, 2008.

JOURNAL PUBLICATIONS

Claus Brabrand, Robert Giegerich, & Anders Møller: "Analyzing Ambiguity of Context-Free Grammars", Science of Computer Programming (SCP), Vol. 75(3), p. 176-191, Elsevier, 2010.

Claus Brabrand & Bettina Dahl: "Using the SOLO Taxonomy to Analyze Competence Progression of University Science Curricula", Higher Education, Vol. 58(4), p. 531-549, Springer 2009.

Claus Brabrand: "Constructive Alignment for Teaching Model-Based Design for Concurrency", Transactions on Petri-Nets and Other Models of Concurrency (ToPNoC), Vol. 1(1), p. 1-18, Springer-Verlag, 2008.

Claus Brabrand, Anders Møller, & Michael I. Schwartzbach: "Dual Syntax for XML Languages", Information Systems, Vol. 33(4), p. 385-406, Elsevier, 2008.

Claus Brabrand & Michael I. Schwartzbach: "The Metafront System: Extensible Parsing and Transformation", Science of Computer Programming (SCP), Vol. 68(1), p. 2-20, Elsevier, 2007.

Claus Brabrand, Anders Møller, Steffan Olesen, & Michael I. Schwartzbach: "Language-Based Caching of Dynamically Generated HTML", WWW Journal, Vol. 5(4), p. 305-324, Springer, 2002.

Claus Brabrand, Anders Møller, & Michael I. Schwartzbach: "The <bigwig> Project", ACM Transactions on Internet Technology (TOIT), Vol. 2(2), p. 79-114, ACM, 2002.

Claus Brabrand, Anders Møller, Mikkel Ricky, & Michael I. Schwartzbach, "Powerforms: Declarative Client-Side Form Field Validation", WWW Journal, Vol. 3(4), p. 205-214, Kluwer, 2000.

Claus Brabrand, Anders Møller, Anders Sandholm, & Michael I. Schwartzbach: "A Runtime System for Interactive Web Services", Journal of Computer Networks, Vol. 31(11-16), 1999.

CONFERENCE/WORKSHOP PUBLICATIONS

Claus Brabrand, Márcio Ribeiro, Társis Tolêdo, & Paulo Borba: "Intraprocedural Dataflow Analysis for Software Product Lines", In Proc. MODULARITY: AOSD 2012 (AOSD 2012), Potsdam, Germany, 2011.

Márcio Ribeiro, Felipe Queiroz, Paulo Borba, Társis Tolêdo, Claus Brabrand, & Sérgio Soares: "On the Impact of Feature Dependencies when Maintaining Preprocessor-based Software Product Lines", In Proc. Generative Programming and Component Engineering (GPCE 2011), Portland, OR, USA, 2011.

Márcio Ribeiro, Társis Tolêdo, Paulo Borba, & Claus Brabrand: "A Tool for Improving Maintainability of Preprocessor-based Product Lines", In Proc. Second Brazilian Conference on Software: Theory and Practice (CBSOFT) 2011: Tool Session, São Paulo, Brazil, 2011.

Claus Brabrand & Jakob G. Thomsen: "Typed and Unambiguous Pattern Matching on Strings using Regular Expressions", In Proc. 12th Int'l ACM SIGPLAN Symposium on Principles and Practice of Declarative Programming (PPDP), Hagenberg, Austria, 2010.

Jacob Andersen & Claus Brabrand: "Syntactic Language Extension via an Algebra of Languages and Transformations", In Proc. 9th Workshop on Language Descriptions, Tools, and Applications (LDTA), p. 67-85, York, England, March 28, 2009.

Claus Brabrand, Robert Giegerich, & Anders Møller: "Analyzing Ambiguity of Context-Free Grammars", in Proc. Int'l Conference on Implementation and Application of Automata (CIAA), p. 214-225, LNCS 4783, Springer, Prague, Czech Republic, July 18, 2007.

Claus Brabrand, Anders Møller, & Michael I. Schwartzbach: "Dual Syntax for XML Languages", In Proc. 10th Int'l Symposium on Database Programming Languages (DBPL), p.27-41, LNCS 3774, Springer, Trondheim, Norway, 2005.

Claus Brabrand, Michael I. Schwartzbach, & Mads Vanggaard: "The metafront System: Extensible Parsing and Transformation", In Proc. 3rd Workshop on Language Descriptions, Tools, and Applications (LDTA), p. 67-85, Warsaw, Poland, April 6, 2003.

Claus Brabrand & Michael I. Schwartzbach: "Growing Languages with Metamorphic Syntax Macros", In Proc. ACM SIGPLAN Workshop on Partial Evaluation and Semantics-Based Program Manipulation (PEPM), p. 31-40, ACM, Portland, OR, USA, January 14, 2002.

Claus Brabrand, Anders Møller, & Michael I. Schwartzbach: "Static Validation of Dynamically Generated HTML", In Proc. ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering (PASTE), p. 38-45, ACM, Snowbird, UT, USA, June 18, 2001.

Claus Brabrand, Anders Møller, Anders Sandholm, & Michael I. Schwartzbach: "A Runtime System for Interactive Web Services", In Proc. 8th Int'l World Wide Web Conference (WWW), p. 313-323, Elsevier, Toronto, Canada, May 12, 1999.

THESES

Nov. 7, 2002 Claus Brabrand: "Domain Specific Languages for Interactive Web Services", Ph.D. Dissertation, Aarhus University, Denmark

Dec. 20, 1998 Claus Brabrand: "Synthesizing Safety Controllers for Interactive Web Services", Master's Thesis, Aarhus University, Denmark

KEYNOTE PRESENTATIONS

July 6, 2009 (keynote):	ITiCSE 2009 Int'l Conf. on Innovation and Technology in Computer Science Education Paris, France
Nov. 16, 2007 (keynote):	Koli Calling 2007 Int'l Conf. on Computing Education Research Koli National Park, Finland
Sep. 20, 2007 (keynote):	DMLF 2007 Datamatikerlærerforeningens årsmøde 2007 Munkebjerg, Vejle, Denmark
June 25, 2007 (invited speaker):	TeaConc 2007 Workshop on Teaching Concurrency Siedlce, Poland

CONFERENCE PRESENTATIONS

Mar. 28, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, LDTA'09, York, England
July 18, 2007:	“Analyzing Ambiguity of Context-Free Grammars”, CIAA'07, Prague, Czech Republic
Aug. 28, 2005:	“XSugar: Dual Syntax for XML Languages”, DBPL'05, Trondheim, Norway
Apr. 6, 2003:	“The Metafront System: Extensible Parsing and Transformation”, LDTA'03, Warsaw, Poland
Jan. 14, 2002:	“Growing Languages with Metamorphic Syntax Macros”, PEPM'02, Portland, OR, USA
June 18, 2001:	“Static Validation of Dynamically Generated HTML”, PASTE'01, Snowbird, UT, USA
May 12, 1999:	“A Runtime System for Interactive Web Services”, WWW 8, Toronto, Canada

PRESENTATIONS (COMPUTER SCIENCE)

July 14, 2010:	“Pattern Matching on Strings using Regular Expressions”, UFPE, Recife, Brazil
May 11, 2010:	“Pattern Matching on Strings using Regular Expressions”, COPLAS Seminar, Copenhagen, Denmark
May 11, 2010:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, COPLAS Seminar, Copenhagen, Denmark
April 16, 2010:	“Pattern Matching on Strings using Regular Expressions”, FIRST Retreat, Bautahøj, Denmark
Dec. 30, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, UFPE, Recife, Brazil
Nov. 23, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, Aarhus University, Denmark

PRESENTATIONS (continued)

Oct. 23, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, U. of Sussex, Brighton, UK
Sep. 21, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, Reykjavik Uni., Iceland
Sep. 18, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, Bergen Uni., Norway
Aug. 19, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, CWI, Amsterdam, Holland
Aug. 19, 2009:	“Analyzing Ambiguity of Context-Free Grammars”, CWI, Amsterdam, Holland
April 2, 2009:	“Banana Algebra: Syntactic Language Extension via an Algebra of Languages and Transformations”, Copenhagen Uni., Denmark
July 9, 2007:	“Analyzing Ambiguity of Context-Free Grammars”, IT Uni. of Copenhagen
Dec. 19, 2006:	“Analyzing Ambiguity of Context-Free Grammars”, Aalborg University
April 5, 2006:	“Analyzing Ambiguity of Context-Free Grammars”, Uni. of Bielefeld, Germany
July 15, 2005:	“XSugar: Dual Syntax for XML Languages”, University of Tokyo (Todai), Tokyo, Japan
April 13, 2005:	“XSugar: Reversible Stylesheets”, CISS, Aalborg University, Denmark
Mar. 17, 2005:	“XSugar: Reversible Stylesheets”, COPLAS Seminar, IT Uni. of Copenhagen, Denmark
Nov. 29, 2004:	“XSugar: Reversible Stylesheets”, Pi-Lambda Seminar, Aarhus University, Denmark
Nov. 5, 2004:	“Approximating Context-Free Grammar Ambiguity”, Pi-Lambda Seminar, Aarhus Uni.
Nov. 28, 2003:	“Call/C: A Domain-Specific Language for Robust Internet Telephony Services”, ENSEIRB, Bordeaux, France
Sep. 22, 2003:	“Domain Specific Languages for Interactive Web Services”, Net.Object Days, Erfurt, DE
Nov. 28, 2002:	“Flexible, Safe, and Efficient Dynamic Generation of XML”, LaBRI / INRIA, Bordeaux, France
Nov. 22, 2002:	“Macro Languages and Metamorphic Syntax Macros”, IT Uni. of Copenhagen, Denmark
Aug. 22, 2001:	“Flexible, Safe, and Efficient Dynamic Generation of HTML”, Uni. of Pennsylvania, Philadelphia, PA, USA
July 13, 2001:	“Flexible, Safe, and Efficient Dynamic Generation of HTML”, IBM T. J. Watson Research Center, Hawthorne, NY, USA
Mar. 20, 2000:	“<bigwig>--A Language for Developing Interactive Web Services”, Microsoft Research, Redmond, WA, USA
Jan. 18, 2000:	“<bigwig>--A Language for Developing Interactive Web Services”, Datalogforeningen, Copenhagen, Denmark
Dec. 7, 1999:	“<bigwig>--A Language for Developing Interactive Web Services”, Datalogforeningen, Aarhus, Denmark

PRESENTATIONS (EDU. RESEARCH)

Oct. 11, 2010:	“Seminar on Teaching & Learning”, One-day seminar for entire ITU teaching staff, IT Uni. of Copenhagen, Denmark
Aug. 03, 2010:	“How to make sure students learn what we want them to”, UFPE, Recife, Brazil
May 19, 2010:	“How to Improve the Quality of Teaching & Learning”, Dies Academicus 2010, Bielefeld Universität, Germany
Nov. 20, 2009:	“Seminar on Teaching & Learning”, One-day seminar for entire ITU teaching staff, IT Uni. of Copenhagen, Denmark
Sep. 22, 2009:	“How to make sure students learn what we want them to”, Reykjavik Uni., Iceland
July 6, 2009:	“Analyzing CS Competencies using The SOLO Taxonomy”, Keynote address, ITiCSE’09, Paris, France
Oct. 31, 2008:	“Seminar on Teaching & Learning”, One-day seminar for entire ITU teaching staff, IT Uni. of Copenhagen, Denmark
May 28, 2008:	“Seminar on Teaching & Learning”, One-day seminar for entire ITU teaching staff, DGI Byen, Copenhagen, Denmark
Apr. 29, 2008:	“Getting Students to Work ...on Projects ...in Groups”, FIRST Ph.D. School Retreat, Birkerød, Denmark
Apr. 29, 2008:	“Personality Types for Working in Groups”, FIRST Ph.D. School Retreat, Birkerød, Denmark
Nov. 16, 2007:	“Constructive Alignment for Teaching Computer Science”, Keynote address, Koli Calling 2007, Koli National Park, Finland
Sep. 20, 2007:	“Constructive Alignment”, Keynote address, DMLF’07, Vejle, Denmark
June 25, 2007:	“Constructive Alignment for Teaching Model-Based Design for Concurrency”, 2-hour Invited talk for TeaConc’07, Siedlce, Poland
June 7, 2007:	“On the Use of Video and Humour in Teaching”, Video Roadshop, Aarhus Uni.
May 14, 2007:	“Teaching Teaching & Understanding Understanding”, Seminar on Alignment, Inst. of Information & Media Studies, Aarhus Uni.
Apr. 11, 2007:	“Teaching Teaching & Understanding Understanding”, Engineering College of Aarhus
Feb. 21, 2007:	“Implementation of the New Danish Grading Scale”, Science Fac., Uni. of Southern Denmark
Jan. 30, 2007:	“Teaching Teaching & Understanding Understanding”, Copenhagen Business School
Jan. 24, 2007:	“The New Grading Scale at NAT/AU”, Seminar for all teachers at Faculty of Science, Aarhus U.
Dec. 19, 2006:	“Teaching Teaching & Understanding Understanding”, Seminar, Aalborg University

PRESENTATIONS (continued)

Aug. 24, 2006:	“The Theory of Didactic Situations”, 3-day seminar for all teachers at DAIMI, Sandbjerg, Denmark
Feb. 25, 2006:	“Introduction to University Studies in Education”, OOSS Retreat, Molslaboratoriet
Nov. 25, 2005:	“Introduction to University Studies in Education”, Teaching Seminar, Aarhus Uni.
Nov. 4, 2005:	“Introduction to University Studies in Education”, Teaching Seminar, Aarhus Uni.
Oct. 25, 2005:	“Introduction to University Studies in Education”, FIRST/BRICS Ph.D. Schools’ Retreat, Sandbjerg, Denmark

TASK-FORCE ACTIVITIES

Chair of The Science Faculty’s “Special Educational Task Force” (Spring 2007): Charing the implementation of the new 7-step Danish grade scale at Faculty-level, involving total revision of approximately 500 course descriptions so as to also ensure that all courses have explicit intended learning outcomes (cf. my award-winning short-film, “Teaching Teaching & Understanding Understanding”).

Evaluation of Indian educational & research institutions for IT University of Copenhagen wrt. collaboration (Feb. 8-14, 2009):

Mumbai: “Indian Institute of Technology Bombay” (aka., IITB);

Bangalore: “Indian Institute of Management Bangalore” (aka., IIMB), Infosys HQ, Microsoft Research India (aka., MSRI); and

Chennai: “Indian Institute of Technology Madras (aka., IITM).

EXTRA-CURRICULAR ACTIVITIES

June 2005 - Aug. 2007:	Board Member, Fitness Center for University Employees, Aarhus University, Denmark
Jan. 2005 - Apr. 2006:	Board Member, Int’l Student Center, Aarhus, Denmark
Oct. 2004 - Nov. 2006:	Organizer, BRICS Pi-Lambda Seminar Series (regular meetings of the Programming Languages and Formal Models research group), BRICS, Aarhus University, Denmark
Aug. 2004 - Dec. 2004:	Studying Linguistics, Dept. of Linguistics, Aarhus University, Denmark
June 2004 - Apr. 2006:	Volunteer, Int’l Student Center, Aarhus, Denmark
Apr. 2004 - Aug. 2007:	Instructor, Fitness Center for University Employees, Aarhus University, Denmark
