

Curriculum Vitae

Nicklas Bergfeldt

Bachelor of Science in Systems Programming,
Master of Science in Computer Science,
Licentiate of Engineering in Cognitive Systems



nicklas.bergfeldt@vastgotadata.se

Västgöta-Data
P.O. Box 133
SE-541 23 Skövde
SWEDEN

General

Date of birth: November 1st, 1977

Married: June 30th, 2001, with Ida Bergfeldt

Telephone (mobile): +46 (0)70 - 600 34 66

Telephone (office): +46 (0)500 - 44 98 97

Areas of expertise

Computers and programming has for a long time been one of my primary interests, guiding both education and employment choices. My primary expertise lies within three areas: software engineering with focus on requirements elicitation, software design and implementation; artificial intelligence with focus on learning systems; and project management primarily for software development projects for the University of Skövde and Västgöta-Data as well as acting project manager for national FIRST LEGO League competitions.

Regarding software engineering I have both practical and theoretical experience

- Since 2002 I've been developing the award winning FTP server zFTPServer as a freeware project available from <http://zFTPServer.ServeFTP.com>. It has been translated into 10 languages and is actively being used in over 50 countries. An earlier version of the software also won the national 2003 Datormagazin programming competition.
- During my Licentiate of Engineering studies I have taught software development using both high-level and low-level programming languages as well as computer security courses at the University of Skövde.
- I have developed software for both public and private organizations and corporations.

Regarding artificial intelligence, for six years I have performed research as a PhD student in learning systems (computer programs that learns from experience, rather than being programmed) with focus on Artificial Neural Networks. In this area I have been published in top-of-the-line international conferences and helped organizing a few national conferences and workshops.

In the area of software engineering I have been the project manager of joint projects between the University of Skövde and Ericsson Microwave AB for developing interfaces for ground radar simulators.

Education and employment

- 2006- Co-founder and senior developer of Västgöta-Data AB together with Adam Rehbinder, Andreas Hansson, and senior board members, Stig Martín, co-founder and member of the board of Softronic AB, and Robert Rehbinder, CEO of Svenskt Rekonstruktionskapital AB and chairman of Ramnäs Bruk AB.
- 2005- Co-founder of Västgöta-Data KB along with Adam Rehbinder, Andreas Hansson, and Robert Rehbinder. Västgöta-Data offers software development and high-end IT-services.
- 2005 - 2006 Employment as Teaching Assistant and Research Assistant, Department of Humanities and Informatics, University of Skövde, Sweden
- 2005 Licentiate of Engineering in Cognitive Systems, Department of Computer Science, University of Linköping, Sweden
- 2000 - 2005 Employment as PhD student, Department of Computer Science, University of Skövde, Sweden
- 2000 Software engineering project manager, Department of Computer Science, University of Skövde, Sweden
- 2000 Master of Science in Computer Science – New Generation Representations, Department of Computer Science, University of Skövde, Sweden
- 1999 Bachelor of Science in Systems programming, University of Skövde, Sweden

Organizational activities

- 2006 Member of the Board of Balthazar – Sinnenas verkstad
- 2003 Invited speaker at a teacher's conference in Gothenburg, Sweden about the use and advantages of robots in education
- 2002 - 2006 Member of the Organizing Committee, FIRST LEGO League in Skövde, Sweden
- 2001 Exposition at Utmaningen 2001 in Skövde, Sweden
- 2001 Chair of the Second Swedish Championships in RoboCup Simulation, Skövde, Sweden
- 2001 Member of the Organizing Committee, Workshop for the Swedish Artificial Intelligence Society (SAIS2001), Skövde, Sweden

Refereed Publications

- 2005 Buason, G., Bergfeldt, N., and Ziemke, T. (2005). Brains, Bodies, and Beyond: Competitive Co-Evolution of Robot Controllers, Morphologies, and Environments. *Genetic Programming and Evolvable Machines*, 6(1), 25-51.
- 2004 Ziemke, T., Bergfeldt, N., Buason, G., Susi, T., and Svensson, H. (2004). Evolving Cognitive Scaffolding and Environment Adaptation: A New Research Direction for Evolutionary Robotics. *Connection Science*, 16(4), 339-350.
- 2004 Bergfeldt, N., and Hansson, A. (2004). Evolutionary pressure on developing simple languages. In *Proceedings of the 2nd Joint SAIS/SSLS Workshop (AILS 2004)*. Available as Technical Report HS-IKI-TR-05-002, School of Humanities and Informatics, University of Skövde, Sweden.
- 2002 Linåker, F., and Bergfeldt, N. (2002). Learning default mappings and exception handling. In Hallam, B., Floreano, D., Hallam, J., Hayes, G., and Meyer, J.-A., editors, *Proceedings of the Seventh International Conference on Simulation of Adaptive Behavior: From Animals to Animats 7 (SAB2002)*. MIT Press, Cambridge, MA, USA, pp 181-182.

- 2002 Bergfeldt, N., and Linåker, F. (2002). Self-Organized Modulation of a Neural Robot Controller. In *Proceedings of the International Joint Conference on Neural Networks (IJCNN 2002)*. IEEE Press, pp 495-500.

Lecturing experiences

- 2006 **IT-Security – Technical aspects**, Category: Course responsible, lectures and supervision, Level: 2nd year BSc, 5 weeks full-time studies
- 2004 - 2006 **Artificial Intelligence - Symbol systems**, Category: Guest lectures, Level: 2nd year BSc, 5 weeks full-time studies
- 2002 - 2006 **Low level programming**, Category: Course responsible and lectures, Level: 2nd year BSc, 5 weeks full-time studies
- 2002 - 2006 **Project in Adaptive Robotics**, Category: Course responsible, lectures and supervision, Level: Summer course, 5 weeks full-time studies
- 2001 - 2006 **Adaptive Robotics**, Category: Lectures and supervision, Level: MSc, 5 weeks full-time studies
- 2001 - 2002 **Artificial Neural Networks**, Category: Lectures, Level: 3rd year BSc, 4 weeks full-time studies
- 2000 - 2002 **Artificial Intelligence Project**, Category: Lectures and supervision, Level: 3rd year BSc, 2 weeks full-time studies
- 2001 **Artificial Neural Networks for manufacturing automation**, Category: Lectures and supervision, Level: MSc, 5 weeks full-time studies
- 2000 **Artificial Neural Networks**, Category: Practical demonstration and supervision, Level: 3rd year BSc, 4 weeks full-time studies
- 2000 **Artificial Intelligence Symbol systems**, Category: Practical demonstration and supervision, Level: 3rd year BSc, 4 weeks full-time studies
- 1999 **Introduction to Information Technology**, Category: Lectures, Level: 1st year BSc, 2 weeks full-time studies
- 1998 - 1999 **Declarative Programming**, Category: Practical demonstration and supervision, Level: 1st year BSc, 5 weeks full-time studies
- 1998 **Programming Methodology I**, Category: Practical demonstration and supervision, Level: 1st year BSc, 5 weeks full-time studies

Course development

- 2006 **IT-Security – Technical aspects**: 5 weeks full-time studies, Level: 2nd year BSc. The aim of the course was to educate system administrators in security aspects of computers and in particular security in Windows and Linux.
- 2004 - 2006 **Project in Adaptive Robotics II**: 5 weeks full-time studies, Level: 1st year BSc. The focus of the course was to give students an opportunity to extend an already existing robot experiment with different robot control architectures.
- 2002 - 2006 **Project in Adaptive Robotics I**: 5 weeks full-time studies, Level: Summer course. The focus of the course was to give students an opportunity to experiment with different robot control architectures and test these ideas on real, physical robots.

- 2002 - 2006 **Low level programming**: 5 weeks full-time studies, Level: 2nd year BSc. The aim of the course was to give an understanding of how a computer works at the low level (CPU, memory management, I/O, low level programming, etc).
- 2001 - 2006 **Adaptive Robotics**, Duration: 5 weeks full-time studies, Level: MSc. The focus of the course was the understanding of current research on intelligent behaviour in adaptive robotics.
- 2001 - 2002 **Artificial Neural Networks**, Duration: 4 weeks full-time studies, Level: 3rd year BSc. The main part of my development was to extend the locally produced course material and to develop a tutorial for using MATLAB.
- 2001 **Artificial Neural Networks for manufacturing automation**, Duration: 5 weeks full-time studies, Level: MSc. The focus of the course was the understanding of current issues within artificial intelligence and their use in engineering domains.
- 1999 **Introduction to Information Technology**, Duration: 2 weeks full-time studies, Level: 1st year BSc. The main part of my development was to produce course material for explaining how computers work and how they can be connected in a network.

Supervision BSc Dissertations

- 2003 Mats Thell - *Utvärdering av kalenderöverföringsstandarden CAP*, Department of Computer Science, University of Skövde
- 2002 Daniel Andersson, *Evaluering av neurala nätverk för en fotbollsspelande mobil robot*, Department of Computer Science, University of Skövde
- 2001 Mohamad Mehanna, *Evaluating security and efficiency in CGI and ASP*, Department of Computer Science, University of Skövde

Supervision MSc Dissertations

- 2004 Patrick Duchstein - *Bluetooth Khepera robot control and communication*, Department of Computer Science, University of Skövde
- 2003 Johan Kostamo - *USB enabled Bluetooth stack*, Department of Computer Science, University of Skövde
- 2003 Magnus Karlsson - *USB driver development*, Department of Computer Science, University of Skövde
- 2003 Daniel Andersson - *Cooperative observation of multiple moving targets: an evolutionary approach*, Department of Computer Science, University of Skövde
- 2002 Kari Karvosenoja, *Bluetooth enabled mobile robots*, Faculty of Computer Science and Engineering, De Montfort University, United Kingdom and Department of Mechanical and Manufacturing Engineering, University of Skövde, Sweden
- 2002 Andreas Eriksson, *Bluetooth for Mobile Robots*, Faculty of Computer Science and Engineering, De Montfort University, United Kingdom and Department of Mechanical and Manufacturing Engineering, University of Skövde, Sweden
- 2002 Henrik Jasson, *Higher-Ordered Feedback Architectures - a Comparison*, Department of Computer Science, University of Skövde
- 2002 Claes Aronsson, *Evolution of Neural Controllers for Robot Teams*, Department of Computer Science, University of Skövde