

Jussi Nikander

CONTACT INFORMATION

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PERSONAL INFORMATION

Date of Birth January 16th 1979
Armed Service July 1998 - June 1999
Military rank Second Lieutenant (reserves)
Marital Status Married, no children

RESEARCH INTERESTS

Visualisation and algorithmic methods in geoinformatics. Methods for terrain analysis, and handling very large data sets in geoinformatics.

EDUCATION

Helsinki University of Technology

Department of Computer Science and Engineering

M.Sc (Computer Science)

- Topic of Thesis: "Managing Automatically Assessed Exercises in TRAKLA2"
- Major: Software Systems
- Minor: Formal Methods in Computer Science

LANGUAGES

Finnish	native
English	fluent
Swedish	fair
German	passable
Japanese	passable

ACADEMIC EXPERIENCE

Helsinki University of Technology

Teaching Assistant

January - May, 2001

Held lab sessions on basic Data Structures and Algorithms course, advised students and assessed project work.

Research Assistant

June - December 2001

Worked full-time during the summer and part-time during the fall semester on the Matrix project. Main responsibilities were in system development.

Teaching Assistant

January 2002 - May 2005

Worked as head teaching assistant at the Data Structures and Algorithms course during each spring term. During the summer and the fall semester worked on the Matrix project. Responsibilities in the project included system design and development.

Research Assistant

June - December 2005

Worked on master's thesis.

PUBLICATIONS

Publications in International Scientific Journals

Lauri Malmi, Ville Karavirta, Ari Korhonen, and Jussi Nikander (2005) **Experiences on Automatically Assessed Algorithm Simulation Exercises with Different Resubmission Policies**. *Journal of Educational Resources in Computing* 5 (3).

Lauri Malmi, Ville Karavirta, Ari Korhonen, Jussi Nikander, Otto Seppälä, and Panu Silvasti (2004) **Visual Algorithm Simulation Exercise System with Automatic Assessment: TRAKLA2**. *Informatics in Education*, 3 (2), pp. 267-288.

Ari Korhonen, Lauri Malmi, Jussi Nikander, and Petri Tenhunen (2003) **Interaction and Feedback in Automatically Assessed Algorithm Simulation Exercises**. *Journal of Information Technology Education*, vol. 2, pp. 241-255.

Publications in Finnish Scientific Journals

Jussi Nikander (2006) **Sijaintialgoritmittehtävien automaattinen tarkastaminen** *Tietojenkäsittelytiede* 25, pp. 38-50, December 2006

Publications in International Scientific Conferences

Jussi Nikander and Kirsi Virrantaus (2007) **Learning environment of spatial data algorithms**. *International Cartographic Conference ICC 2007*. Moscow, Russia. August 2007.

Jussi Nikander and Juha Helminen (2007) **Algorithm Visualization in Teaching Spatial Data Algorithms**. *11th International Conference Information Visualization IV2007*. Zürich, Switzerland, pp. 505-510. July 2007.

Jussi Nikander, Ari Korhonen, Eiri Valanto, Kirsi Virrantaus (2006) **Visualization of Spatial Data Structures on Different Levels of Abstraction**. *Proceedings of the Fourth Program Visualization Workshop*. University of Florence, Italy, pp. 54-59. June 2006.

Petri Ihantola, Ville Karavirta, Ari Korhonen, and Jussi Nikander (2005) **Taxonomy of effortless creation of algorithm visualizations**. In: *ICER'05: Proceedings of the 2005 international workshop on Computing education research*. ACM Press, New York, NY, USA, pp. 123-133.

Ari Korhonen, Lauri Malmi, Jussi Nikander, and Panu Silvasti (2002) **Algorithm Simulation - A Novel Way to Specify Algorithm Animations**. In: Mordechai Ben-Ari ed. *Proceedings of the Second Program Visualization Workshop*. HorstrupCentret, Denmark, pp. 28-36. June.

Publications in Finnish Scientific Conferences

Ville Karavirta, Ari Korhonen, Jussi Nikander, and Petri Tenhunen (2002) **Effortless Creation of Algorithm Visualization**. In: *Proceedings of the Second Annual Finnish / Baltic Sea Conference on Computer Science Education*. pp. 52-56. October.

Ari Korhonen, Lauri Malmi, Jussi Nikander, and Petri Tenhunen (2002) **Automatic Feedback and Algorithm Simulation**. In: *Proceedings of the First Annual Baltic Conference on Computer Science Education*, Report A-2002-1. University of Joensuu, Joensuu, Finland, pp. 20-26.

Jussi Nikander (2006) **Sijaintialgoritmitehtävien automaattinen tarkastaminen**. In: *Tietojenkäsittelytieteen päivät 2006*. pp. 31-36, June 2006.

Other Publications

Ari Korhonen, Lauri Malmi, Panu Silvasti, Ville Karavirta, Jan Lönnberg, Jussi Nikander, Kimmo Stålnacke, and Petri Ihantola (2004) **Matrix - A Framework for Interactive Software Visualization**. Laboratory of Information Processing Science, Department of Computer Science and Engineering, Helsinki University of Technology. TKO-B 154/04. Research Report.

PROFESSIONAL EXPERIENCE

Nokia Networks

Summer Trainee

June - August, 2000

Nixu OY

Summer Trainee

June - August, 1996

COMPUTER SKILLS

- Languages: Java, C, Unix shell scripts, some experience with C++ and python
- Databases: Several years of experience with the development and maintenance of small PostgreSQL databases, good knowledge of SQL.
- Operating Systems: Several years of experience in the use and maintenance of various Linux distributions, basic knowledge of other *nix-systems and Windows.