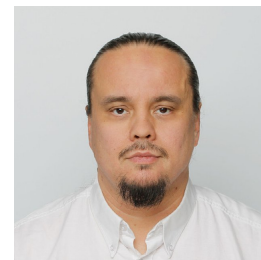


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## Qualifications

Doctoral degree, Engineering and Technology, Helsinki University of Technology  
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Licentiate degree, Engineering and Technology, Helsinki University of Technology  
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## Employment

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### Docentship

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Turku, Finland  
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## Research outputs

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### **Automatic Recognition of Misconceptions in Visual Algorithm Simulation Exercises**

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### **A comprehensive taxonomy of algorithm animation languages**

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### **Comparing Learning Performance of Students Using Algorithm Visualizations Collaboratively on Different Engagement Levels**

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### **HOW DOES ALGORITHM VISUALIZATION AFFECT COLLABORATION? Video Analysis of Engagement and Discussions**

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### **Experiences on Using TRAKLA2 to Teach Spatial Data Algorithms**

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### **Analyzing engagement taxonomy in collaborative algorithm visualization**

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### **Interaction and Feedback in Automatically Assessed Algorithm Simulation Exercises**

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### **MatrixPro**

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### **Tietojenkäsittelytieteen päivät 2003**

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### **TRAKLA2: a Framework for Automatically Assessed Visual Algorithm Simulation Exercises**

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### **Algorithm Simulation - A Novel Way to Specify Algorithm Animations**

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### **Automatic Feedback and Algorithm Simulation**

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### **Does It Make A Difference If the Students Exercise on the Web Or in the Class Room?**

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### **Effortless Creation of Algorithm Visualization**

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### **Electronic course material on Data Structures and Algorithms**

Korhonen, A., Malmi, L., Mård, P., Salonen, H. & Silvasti, P., 2002, *Proceedings of the Second Annual Finnish/Baltic Sea Conference on Computer Science Education*. Kuittinen, M. (ed.). Joensuu: University of Joensuu, p. 16-20

### **Experiences in automatic assessment on mass courses and issues for designing virtual courses**

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### **Matrix - Concept Animation and Algorithm Simulation System**

Korhonen, A. & Malmi, L., 2002, *Proceedings of the Working Conference on Advanced Visual Interfaces*. De Marsico, M., Levialdi, S. & Panizzi, E. (eds.). Trento, Italy: ACM, p. 109-114

### **Understanding Algorithms by Means of Visualized Path Testing**

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### **Matrix - Concept animation and algorithm simulation system**

Korhonen, A., Malmi, L. & Saikkonen, R., 1 Dec 2001. 1 p.

### **Design Pattern for Algorithm Animation and Simulation**

Korhonen, A., Malmi, L. & Saikkonen, R., 2001, *The First International Program Visualization Workshop, Porvoo, Finland, 2000*. Sutinen, E. (ed.). Joensuu: University of Joensuu, p. 89-100

### **Fully Automatic Assessment of Programming Exercises**

Saikkonen, R., Malmi, L. & Korhonen, A., 2001, *The 6th Annual SIGCSE/SIGCUE Conference on Innovation and Technology in Computer Science Education - ITiCSE 2001, Canterbury, UK, 2001*. Finkel, D. (ed.). Canterbury, UK: ACM, p. 133-136

### **Matrix - Algorithm Simulation and Animation Framework**

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### **Algorithm Simulation with Automatic Assessment**

Korhonen, A. & Malmi, L., 2000, *ITICSE 2000: PROCEEDINGS OF THE 5TH ANNUAL SIGCSE/SIGCUE CONFERENCE ON INNOVATION AND TECHNOLOGY IN COMPUTER SCIENCE EDUCATION*. Joyce, D. (ed.). ACM, p. 160-163 4 p. (SIGCSE BULLETIN : A QUARTERLY PUBLICATION OF THE SPECIAL INTEREST GROUP ON COMPUTER SCIENCE EDUCATION; vol. 32, no. 3).

### **New Methods for Teaching Data Structures and Algorithms**

Malmi, L. & Korhonen, A., 2000, *Inno2000, International Conference of Innovations in Higher Education, August 2000, Helsinki, Finland*. Helsinki: Helsingin yliopisto, p. 69

## **Activities**

### **Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Member)

2023 → 2024

### **Journal of Systems and Software (Journal)**

Korhonen, A. (Editorial board member)

2023 → 2024

### **Intelligent Tutoring for Algorithm Visualization Exercises**

Tilanterä, A. (Speaker) & Korhonen, A. (Speaker)

18 Nov 2021

### **New Acos Content Types**

Korhonen, A. (Speaker), Mariani, G. (Speaker), Sormunen, P. (Speaker), Rybicki, J.-M. (Speaker), Lukkarinen, A. (Speaker), Haaranen, L. (Speaker), Tilanterä, A. (Speaker) & Sorva, J. (Speaker)

15 Mar 2021 → 16 Mar 2021

### **ACM Conference on International Computing Education Research**

Korhonen, A. (Member)

2021 → 2023

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Reviewer)

2021

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Editorial board member)

2021 → 2022

**Informatics in Education (Journal)**

Korhonen, A. (Reviewer)

2021

**Koli Calling - International Conference on Computing Education Research**

Korhonen, A. (Member)

2021 → 2023

**Koli Calling - International Conference on Computing Education Research (Event)**

Korhonen, A. (Reviewer)

2021

**University of Oslo (Publisher)**

Korhonen, A. (Editorial board member)

2021 → 2022

**Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Participant)

14 Jun 2020 → 17 Jun 2020

**IEEE Transactions on Learning Technologies (Journal)**

Korhonen, A. (Reviewer)

2020 → 2022

**ACM Conference on International Computing Education Research**

Korhonen, A. (Participant)

12 Aug 2019 → 14 Aug 2019

**Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Participant)

15 Jul 2019 → 17 Jul 2019

**International GamiFIN Conference (Event)**

Korhonen, A. (Reviewer)

8 Apr 2019 → 10 Apr 2019

**Koli Calling - International Conference on Computing Education Research**

Korhonen, A. (Participant)

22 Nov 2018 → 25 Nov 2018

**ACM Conference on International Computing Education Research**

Korhonen, A. (Chair)

12 Aug 2018 → 16 Aug 2018

**Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Participant)

30 Jun 2018 → 4 Jul 2018

**ACM Technical Symposium on Computer Science Education**

Korhonen, A. (Participant)  
21 Feb 2018 → 24 Feb 2018

**ANNUAL CONFERENCE ON INNOVATION AND TECHNOLOGY IN COMPUTER SCIENCE EDUCATION (Event)**

Korhonen, A. (Member)  
2018 → 2021

**Computer Science Education (Journal)**

Korhonen, A. (Reviewer)  
2018 → 2019

**International Computing Education Research Conference**

Korhonen, A. (Member)  
18 Aug 2017 → 20 Aug 2017

**Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Member)  
1 Jul 2017 → 5 Jul 2017

**ACM Conference on International Computing Education Research (Event)**

Korhonen, A. (Reviewer)  
2017 → ...

**CICERO SIG: Educational Data Mining and Learning Analytics in Digital Learning**

Korhonen, A. (Speaker)  
9 Dec 2016

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Editorial board member)  
1 Jan 2016 → 31 Dec 2018

**ACM Inroads (Journal)**

Korhonen, A. (Reviewer)  
2016

**ACM Transactions on Applied Perception (Journal)**

Korhonen, A. (Reviewer)  
2016 → 2017

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Reviewer)  
2016 → ...

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Guest editor)  
2016 → 2018

**Annual Conference of the European Society for Engineering Education**

Korhonen, A. (Organiser)  
2016

**Annual Conference of the European Society for Engineering Education**

Korhonen, A. (Member)  
2016

**International Journal of Engineering Education (Journal)**

Korhonen, A. (Reviewer)  
2016

**Media Education Conference**

Korhonen, A. (Member)  
Dec 2015

**Annual Conference on Innovation and Technology in Computer Science Education**

Korhonen, A. (Member)  
6 Jul 2015 → 8 Jul 2015

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Editorial board member)  
2015

**IEEE (External organisation)**

Korhonen, A. (Chair)  
2015

**Sanna Heikkinen (Aalto University) August 2014**

Korhonen, A. (Reviewer)  
Aug 2014

**Anne-Kathrin Peters (Uppsala University) Sweden**

Korhonen, A. (Opponent)  
25 Apr 2014

**Stanford University**

Korhonen, A. (Visiting researcher)  
2014

**University (External organisation)**

Korhonen, A. (Chair)  
2014

**Interactive Technology in Education Conference**

Korhonen, A. (Member)  
2013 → 2021

**Stanford University**

Korhonen, A. (Visiting researcher)  
2013

**University (External organisation)**

Korhonen, A. (Chair)  
2013

**University (External organisation)**

Korhonen, A. (Chair)  
2013

**University (External organisation)**

Korhonen, A. (Chair)  
2012

**Virginia Tech**

Korhonen, A. (Visiting researcher)  
2012

**Antonio Pérez Carrasco**

Korhonen, A. (Host)  
1 Jan 2011

**Cliff Shaffer**

Korhonen, A. (Host)  
1 Jan 2011

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2011

**Universidad Rey Juan Carlos**

Korhonen, A. (Visiting researcher)  
2011

**University (External organisation)**

Korhonen, A. (Chair)  
2011

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2010

**University (External organisation)**

Korhonen, A. (Chair)  
2010

**IEEE Transactions on Learning Technologies (Journal)**

Korhonen, A. (Reviewer)  
1 Jan 2009 → ...

**ACM Transactions on Computing Education (Journal)**

Korhonen, A. (Reviewer)  
2009 → ...

**Foreign Visitor**

Korhonen, A. (Host)  
2009

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2009

**University (External organisation)**

Korhonen, A. (Chair)  
2009

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2008

**University (External organisation)**

Korhonen, A. (Chair)  
2008

**Foreign Visitor**

Korhonen, A. (Host)  
2007

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2007

**Foreign Visitor**

Korhonen, A. (Host)  
2006

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2006

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editor-in-chief)  
2005

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2005

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editor-in-chief)  
2004

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2004

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2003

**Foreign Organisation**

Korhonen, A. (Visiting researcher)  
2002

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editor-in-chief)  
2002

**Tietojenkäsittelytiede (Journal)**

Korhonen, A. (Editorial board member)  
2002

**University (External organisation)**

Korhonen, A. (Chair)  
2002

**University (External organisation)**

Korhonen, A. (Chair)  
2001

**University (External organisation)**

Korhonen, A. (Chair)  
1999

**Projects****EAGER: EAGER: Dynamic Digital Text- An Innovation in STEM Education**

Korhonen, A. (Project Member) & Hakulinen, L. (Project Member)  
01/01/2013 → 31/12/2014

**FUN: Suomi - USA pelitutkimusverkoston hanke: Pelit oppimisympäristönä**

Korhonen, A. (Project Member), Hakulinen, L. (Project Member) & Malmi, L. (Principal investigator)  
01/11/2012 → 31/10/2014