Svend Christian Svendsen

Curriculum Vitae

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Education

Aug 2016 – Jul 2021 **Computer Science PhD**, *Aarhus University*
Research in I/O-efficient algorithms with applications to graphs and massive terrain data.

Sep 2019 – Jan 2020 **Visiting PhD Student**, *Duke University*.

Aug 2016 – Jul 2019 **Computer Science MSc**, *Aarhus University*

Aug 2013 – Jul 2016 **Computer Science BSc**, *Aarhus University*

Aug 2010 – Jul 2013 **Gymnasium (STX)**, *Munkensdam Gymnasium*

Employment

Aug 2021 – now **Consultant**, *Netcompany*
Development in Java Spring for the Tax and Public Safety unit.

Nov 2015 – Jul 2016 **Student Software Developer**, *part-time*, *SCALGO*
Development of C++ software for processing large geographical datasets. See scalgo.com.

Nov 2013 – Nov 2015 **Student Software Developer**, *part-time*, *Aarhus University*
Development of the C++ library TPIE used for algorithms for massive data sets on commodity hardware. See cs.au.dk/∼rav/tpie.

Jul 2013 – Oct 2013 **Student Software Developer**, *part-time*, *Døgndata*
Development of Ruby on Rails applications for use in institutions for vulnerable youth. See sofus.dk.

Programming Competitions

2013 **International Olympiad in Informatics (IOI)**, Brisbane, Australia
Bronze medal

2012 **International Olympiad in Informatics (IOI)**, Sirmione, Italy
Bronze medal

2013, 2015, 2016, 2017 **Northwestern Europe Regional Contest (NWERC)**
Best ranking: 13 of 120 (1st among Danish teams)

2013, 2014, 2016, 2017 **Nordic Collegiate Programming Contest (NCPC)**, Aarhus, Denmark
Best ranking: 27 of 253 (2nd among Danish teams)

2011 **International Olympiad in Informatics (IOI)**, Pattaya, Thailand

Publications

2021 **Algorithms for Massive Terrains and Graphs**
Ph.D. thesis

2021 **Practical I/O-Efficient Multiway Separators**
Single-authored manuscript

2020 **1D and 2D Flow Routing on a Terrain**,
ACM SIGSPATIAL 2020, Seattle
Co-authored paper with Aaron Lowe, Pankaj K. Agarwal, and Lars Arge.

2019 **Learning to Find Hydrological Corrections**,
ACM SIGSPATIAL 2019, Chicago
Co-authored paper with Lars Arge, Allan Grønlund, and Jonas Tranberg.

2017 **External Memory Pipelining Made Easy With TPIE**,
IEEE BigData 2017, Boston
Co-authored paper with Lars Arge, Mathias Rav, and Jakob Truelsen.

Teaching

2017 – 2021 **Optimization**, *Aarhus University*
Teaching Assistant for 5 semesters

2017 **Combinatorical Search**, *Aarhus University*
Teaching Assistant

2016 **Perspectives in Computer Science**, *Aarhus University*
Teaching Assistant

Languages

Danish, *Native proficiency*

English, *Full professional proficiency*