CASPER MOLDRUP RYSGAARD

Computer Science Ph.D. Student at Aarhus University

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ABOUT ME

Supervisor: Gerth Stølting Brodal, gerth@cs.au.dk

I am a Ph.D. student at Aarhus University, as part of the Algorithms, Data Structures and Foundationsof Machine Learning group. My main focus is on I/O efficient algorithms and data structures, which is the task of minimizing the number of block read and writes to disk.

In my free time I highly enjoy the spare time activities at the university, and have contributed to the social aspects by voluntering work.

MOTIVATION FOR PARTICIPATION

Roughly half of what my research group covers is the foundations of machine learning. I however have not worked with this part of the group yet, and at group seminars I have no basic understanding of the topics discussed. I hope that with the attendence of the summer school, I will be able to broaden my horizon, both in understanding, as well as the basis of my Ph.D.

PUBLICATIONS

Space Efficient Functional Off-line Partial Persistent Trees with Applications to Planar Point Location

📅 2022 *Accepted at WADS'23*

Authors: G. S. Brodal, C. M. Rysgaard, J. K. R. Schou, and R. Svenning.

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External Memory Fully Persistent Search Trees

📅 2023 *Accepted at STOC'23*

Authors: G. S. Brodal, C. M. Rysgaard, and R. Svenning.

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Random Access on Narrow Decision Diagrams in External Memory

📅 2024 *Accepted at SPIN'24*

Authors: S. C. Sølvsten, C. M. Rysgaard, and J. Pol

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On Finding Longest Palindromic Subsequences using Longest Common Subsequences

📅 2024 *Under review*

Authors: G. S. Brodal, R. Fagerberg, and C. M. Rysgaard

CONFERENCE PARTICIPATION

STOC	SODA	STOC
Rome, Italy	**Florence, Italy**	**Orlando, USA**
📅 2022	📅 2023	📅 2023

EDUCATION

Ph.D. in Computer Science

Aarhus University, Denmark

📅 2021 – 2025 (expected)

BSc in Computer Science

Aarhus University, Denmark

📅 2017 – 2020

TEACHING

Teaching Assistant

Algorithms and Data Structures

📅 2018, 2019, 2020, 2021, 2022, 2023

Introduction to Programming with Scientific Applications (Python)

📅 2019, 2022, 2023

Programming Languages

📅 2020, 2021

VOLUNTEER WORK

Chairman, TÅGEKAMMERET

📅 2022 – 2023

TÅGEKAMMERET is a party- and lecture organisation for students of Computer Science, Math, Physics, and more.

Board Member, DSAU

📅 2019 – 2022

DSAU is a Computer Science student organisation hosting social and skill learning events, in collaboration with various companies.

Bartender, Fredagscaféen

📅 2018 – Present

The Computer Science's friday bar at Aarhus University.

Kitchen Responsible, Regnecentralen

📅 2018 – Present

A kitchen and social hub for students.

Tutor, Mat/Fys-Tutorgruppen

📅 2018 – 2022

The tutors welcome the new students to the university.