

# PHD IN AARHUS

The PhD programs at Department of Computer Science at Aarhus University are affiliated with the Graduate School of Science and Technology.

About the application procedure and PhD study

cs.au.dk/phd

About living and working in Denmark

· au.dk/ias

About the PhD society at AU

phd.au.dk/phdhouse

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Computer Science research at AU covers a wide range of theoretical and experimental areas

**Algorithms and data structures** – with a particular focus on I/O-efficient algorithms and algorithm engineering for massive data sets.

**Bioinformatics** – developing algorithms for analysis of large biological data sets, such as string and pattern recognition algorithms.

Computer graphics and image processing – including physically based simulation of surfaces and fluids, biomedical simulation and visualization.

**Computer mediated activity** – development of new interaction techniques, methods and theories for computer-mediated activities of work and everyday life,

**Cryptography and security** – in particular, public-key cryptography, cryptographic protocols, and quantum cryptography.

**Data-intensive systems** - topics related to spatiotemporal data management, query processing and indexing, high-dimensional and multimedia data, and infrastructure for mobile services and cloud computing.

**Logic and Semantics** - semantics of programming languages and type theories, models and logics for reasoning about programs

Mathematical computer science – covering topics such as computational complexity theory, algorithmic and computational game theory, mathematical programming and combinatorial optimization.

**Programming languages** – focusing on object-oriented and functional programming, web technologies, and specification, verification, testing and analysis of software

**Ubiquitous computing and interaction** – creating concepts for future interactive spaces at schools, libraries, museums, homes and workplaces,

**Use, design and innovation** – including participatory design in innovation processes,

Head of PhD studies Anders Møller amoeller@cs.au.dk cs.au.dk/phd

Aarhus University www.au.dk



# PHD COMPUTER SCIENCE AARHUS UNIVERSITY

A WORLD CLASS RESEARCH ENVIRONMENT



# DEPARTMENT OF COMPUTER SCIENCE AARHUS UNIVERSITY

30 Permanent faculty

65 PhD students

200 M.Sc students

500 B.Sc. students



The Department of Computer Science at Aarhus University is one of Europe's strongest computer science research environments, covering a wide range of research areas within theoretical as well as experimental computer science. More than half of all PhDs who obtained a PhD in computer science in Denmark are from Aarhus University.

A PhD degree from Aarhus leads to great job opportunities. After graduation many of our students are employed in the IT industry in the Aarhus region, which includes Google, VMWare and also numerous small innovative companies. However, many choose to seek opportunities internationally, and many obtain academic positions either in Denmark or abroad.

Due to the high level of research performed at Computer Science in Aarhus we benefit from external funding from a large amount of national and international research foundations and private companies.

#### Simina Bränzei, PhD student

"The research environment at Aarhus is excellent, we have freedom and support to pursue ideas that we are interested in, and can always discuss our projects with the people around. Aarhus itself is a lovely city."





## STUDYING IN AARHUS, DENMARK

Aarhus is a dynamic city on the Jutland peninsula in Denmark. From here, beach, harbour and forest are all within reach of a 15-minute bike ride. 315.000 people live in Aarhus and 1,2 million people live in the greater Aarhus Area.

Think of Aarhus as a major city crammed into a mega village. Being a university city, Aarhus is the youngest in Denmark measured by average age, but historically one of the oldest. Thus, the atmosphere is a vibrant mix of youthful energy and blasts from the past.

Aarhus has the highest concentration of students in Denmark and a lively study environment as many of the educational institutions are located in central Aarhus.

#### **Population**

Denmark 5.602.628 Aarhus 319.094

### **Aarhus University**

THES-Ranking 2012 116
Number of students 41.500
Number of employees 11.000



# FLEXIBLE PROGRAMS

As a PhD student at Aarhus University you will be part of a dynamic research environment. The university has more than 2500 doctoral and post-doctoral students and approximately 2000 senior researchers, lecturers and professors.

The PhD-House at Aarhus University aspires to create a dynamic, academic and social environment for the university's young research talents, and is a meeting place for the many international PhD students at Aarhus University.

PhD students are enrolled and employed for 3 to 5 years in the PhD programme. For example you can enroll the PhD program right after obtaining your bachelor degree.

Highly competitive PhD stipends with tuition included makes Denmark a very attractive place to obtain your PhD degree.

We encourage you to take a look at our research web pages, at cs.au.dk/research and in case you have specific questions about pursuing a PhD within a particular research area, please feel free to contact the faculty members within the research group.

#### Kasper Green Larsen, PhD student

"One of the greatest strengths in Aarhus is the large research groups. You can always go down the hall and find the first ten people to collaborate and discuss ideas with. This provides a very vibrant and inspiring research environment, whose equal I have not seen elsewhere.

