

# MSC IN COMPUTER SCIENCE\*

FOR A CAREER IN PROGRAMMING AND SOFTWARE DEVELOPMENT



◀ I arrived in Aarhus in 2008 as an exchange student on the Erasmus programme. I already had a BSc in computer science from Pisa, but it was not till I arrived in Denmark that I found out how great academic life at a university can be. Now, as a chief software architect at Danske Bank, I am responsible for the development of the company's web and mobile bank solutions. It is an exciting place to work, because we are migrating a centralised software architecture model to a model based on distributed systems. I've worked at Danske Bank now for seven years, and I wouldn't change it for anything. Meet Angelo at [cs.au.dk/career](http://cs.au.dk/career).

## ANGELO AGATINO NICOLOSI

MSc in Computer Science, from Italy  
Chief Software Architect at Danske Bank Group IT, Aarhus

### HIGH-LEVEL RESEARCH

Whether your interest is in complex algorithms, IT security, logic and semantics, pervasive computing, or something completely different within the field of computer science, this programme will give you the opportunity to specialise in an area of your choice.

For more information regarding research areas in computer science at Aarhus University, visit [www.cs.au.dk/research](http://www.cs.au.dk/research).

### QUALITY TEACHING IN AN INFORMAL SETTING

The Master's programme in Computer Science is dedicated to the highest-quality teaching in an informal learning environment. Our international teaching staff expect students to take an active part in the programme, and staff-student consultation is always encouraged. The teaching is a mix of lectures and classes, with preparatory work in study groups.

### ADMISSION REQUIREMENTS

We expect applicants to have a bachelor's degree giving a thorough background in basic computer science. This should include: computation theory (formal languages and compilation, mathematical logic and undecidability, design and analysis of algorithms, and data structures), programming (object-oriented programming, functional programming, software architecture, and interaction design), and systems (computer architecture, operating systems, distributed systems, security, databases).

For students who meet these requirements, our Master's programme offers a number of specialisations, such as cryptology, algorithmics, programming languages, HCI, bioinformatics, and ubiquitous computing and interaction.

### STUDENT LIFE

The Computer Science department has a range of social spaces for getting together with fellow students outside class, and these are an excellent basis for both study-related and social activities. Our new study café is also a great place to get together and work with your study group. The department and our various student associations organise a variety of events and tech talks in collaboration with local and international companies.

As a first-year student, you will also be allocated a mentor to guide and support your studies throughout the year.

### CAREERS

Computer scientists continue to be in great demand all over the world, and AU computer science graduates have a very good reputation. In Aarhus, many IT companies are on the lookout for graduates and student employees for part-time jobs. The department has a close collaboration with these local businesses and organisations. Recent graduates have been recruited by leading IT companies all over the world in areas such as software development, consultancy work, project management, and research.



#### PLACE OF STUDY

Aarhus

#### WWW

[masters.au.dk/computerscience](http://masters.au.dk/computerscience)  
[cs.au.dk/international](http://cs.au.dk/international)

#### ANNUAL TUITION FEE

EU/EEA/Swiss citizens: FREE  
Others: EUR 13,500

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## SELECTION CRITERIA

As the Master's programme admits only a limited number of students each year, meeting the admission requirements does not in itself guarantee admission to the programme. Student places are allocated on the basis of an overall assessment. In evaluating qualified applicants, the admissions committee assesses applicants according to the following criteria: academic background; overall grade level of bachelor's degree; grades achieved on relevant courses; and relevant courses (measured in credit units) included in the bachelor's degree.

Relevant courses include core courses within the subject areas of computer science, mathematics, probability theory, and statistics.

## PROGRAMME STRUCTURE

With a combination of two specialisations and electives, there are many ways to structure your Computer Science master's programme. It is also possible to choose just one specialisation, then study abroad during the third semester.

1 <sup>ST</sup> SEMESTER	2 <sup>ND</sup> SEMESTER	3 <sup>RD</sup> SEMESTER	4 <sup>TH</sup> SEMESTER
	Specialisation 1		THESIS
	Specialisation 2		
Elective Courses	Elective Courses	Elective Courses	

## SPECIALISATIONS

- Algorithmics
- Bioinformatics
- Cryptology
- Human-Computer Interaction (HCI)
- Programming Languages
- Ubiquitous Computing and Interaction (UBI)

For more in-depth information about the Computer Science study programme and subjects, please visit [www.cs.au.dk/program-structure](http://www.cs.au.dk/program-structure).

## PARTNERSHIP WITH DESTINATION AARHUS

The Department of Computer Science has close collaboration with the industrial network Destination AARhus. Destination AARhus is a professional knowledge-sharing and development community of IT experts from the major IT organisations in greater Aarhus and the region. It is a community for IT talent from all over the world, exploring the unique opportunities for building an IT career in the greater Aarhus area. Destination AARhus brings together companies employing more than 3,000 IT specialists in greater Aarhus. It also hosts career events and tech talks for international students and professionals based in Aarhus.

## IT CITY KATRINEBJERG

The Department of Computer Science is located in IT City Katrinebjerg, the centre where Aarhus University has consolidated all its IT degree programmes and research. IT City Katrinebjerg is the base for several IT-related companies. This facilitates contact between the university, research and the business community, and provides the ideal base for advanced technological innovation. As the largest IT education centre in Denmark, with approximately 2,500 students and more than 200 researchers, IT City Katrinebjerg is an exciting study environment. This multidisciplinary hub, unique to Aarhus University, provides great opportunities in IT for students, researchers, and the business community.