AARHUS UNIVERSITY

140400-7153
202110455

Nicklas Pedersen

HAR DEN 19. JUNI 2025 BESTÅET

Diplomingeniøruddannelsen i softwareteknologi
med specialiseringen webteknologi

VED AARHUS UNIVERSITET
OG HAR DERMED RET TIL AT BETEGNE SIG

Professionsbachelor som Diplomingeniør i softwareteknologi
Bachelor of Engineering in Software Technology

Aarhus, den 23. juni 2025

Eskild Holm Nielsen
dekan for Aarhus Universitet Faculty of Technical Sciences

SOLIDUM PETIT IN PROFUNDIS · UNIVERSITAS ARHUSIENSIS ·

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I henhold til bekendtgørelse nr. 2674 af 28. december 2021 kvalificerer uddannelsen til professionsbachelor som diplomingeniør de studerende til nationalt og internationalt at varetage erhvervsfunktioner, hvor de skal omsætte tekniske forskningsresultater samt naturvidenskabelig og teknisk viden til praktisk anvendelse ved udviklingsopgaver og ved løsning af tekniske problemer. Herudover kan de kritisk tilegne sig ny viden inden for relevante ingeniørmæssige områder og selvstændigt løse forekommende ingeniørmæssige arbejdsopgaver.
Endelig kan de planlægge, realisere og styre tekniske og teknologiske anlæg og herunder være i stand til at inddrage samfundsmæssige, økonomiske, miljø- og arbejdsmiljømæssige konsekvenser i løsningen af tekniske problemer samt indgå i samarbejds- og ledelsesmæssige funktioner og sammenhænge på et kvalificeret niveau sammen med mennesker, der har forskellig uddannelsesmæssig, sproglig og kulturel baggrund.
Uddannelsen kvalificerer herudover de studerende til at deltage i videreuddannelse.

Diplomingeniøruddannelsen i softwareteknologi er normeret til: **210 ECTS**

Nicklas Pedersen

har opnået følgende resultater:

	7-trinsskala	ECTS-skala	Bestået
Obligatoriske kurser			
SW1IDE-01 Indledende digital elektronik 5 ECTS			**Bestået**
SW1IKLT-01 Indledende kredsløbsteknik 5 ECTS	**7**	**C**	**Bestået**
SW1MMLS-01 Matematisk modellering af lineære systemer 5 ECTS	**4**	**D**	**Bestået**
SW1MSYS-01 Microcontroller systemer 5 ECTS	**7**	**C**	**Bestået**
SW1OPRG-01 Objektbaseret programmering 5 ECTS	**10**	**B**	**Bestået**
SW1VPR1-01 Værkstedspraktik 1 **Meritoverført grundet relevant uddannelse** Meritoverført			**Bestået**
SW1PRJ1-01 Projekt 1 5 ECTS			**Bestået**
SW2ALA-01 Anvendt lineær algebra 5 ECTS	**02**	**E**	**Bestået**
SW2DSD-01 Digitalt systemdesign 5 ECTS			**Bestået**
SW2GFV-01 Grænseflader til den fysiske verden 5 ECTS			**Bestået**
SW2ISE-01 Indledende System Engineering 5 ECTS	**7**	**C**	**Bestået**
SW2OOP-01 Objektorienteret programmering 5 ECTS	**7**	**C**	**Bestået**
SW2PRJ2-01 Semesterprojekt 2 5 ECTS	**7**	**C**	**Bestået**
SW3DOA-01 Datastrukturer og algoritmer 5 ECTS	**4**	**D**	**Bestået**

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	7-trinsskala	ECTS-skala	Bestået
SW3DSB-01 Digital signalbehandling 5 ECTS			Bestået
SW3HAL-01 Hardware abstraktioner 5 ECTS	4	D	Bestået
SW3ISU-01 Indlejret softwareudvikling 5 ECTS			Bestået
SW3NGK-01 Netværksprogrammering og grundlæggende kommunikationsnetværk 5 ECTS			Bestået
SW3PRJ3-01 Semesterprojekt 3 5 ECTS	10	B	Bestået
SW4BAD-01 Back-end udvikling og databaser 10 ECTS			Bestået
SW4FED-02 Front-end udvikling 5 ECTS	10	B	Bestået
SW4SWD-01 Softwaredesign 5 ECTS	7	C	Bestået
SW4SWT-01 Softwaretest 5 ECTS	7	C	Bestået
SW4PRJ4-01 Semesterprojekt 4 5 ECTS	7	C	Bestået
Ingeniørpraktik			
E5IPR-01 Ingeniørpraktik 30 ECTS			Bestået
Specialisering			
Computerspilteknologier 5 ECTS			Bestået
KBTVOD-01 Virksomheds- og driftsøkonomi 5 ECTS	02	E	Bestået
STTHCD-01 Human-centered Design 5 ECTS	10	B	Bestået
SWAFE-01 Avanceret front-end development 5 ECTS	4	D	Bestået
SWIOT-01 Internet of Things: Software perspektiv 5 ECTS			Bestået
SWITS-01 IT-sikkerhed 5 ECTS	4	D	Bestået
SWMAD-01 Mobile Application Development 5 ECTS			Bestået
SWMAL-01 Machine Learning 5 ECTS			Bestået

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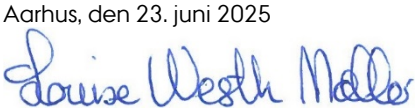
	7-trinsskala	ECTS-skala	Bestået
SW7BAC-01 Bachelorprojekt 20 ECTS E2E encrypted P2P data sharing	**12**	**A**	**Bestået**

Bevisets rigtighed bekræftes

Aarhus, den 23. juni 2025



Louise Westh Møller
uddannelsesadministrativ medarbejder

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Kompetenceprofil for uddannelsen

Viden

- har grundlæggende viden inden for matematik, fysik og signalbehandling.
- har grundlæggende viden inden for analog og digital elektronik.
- har udviklingsbaseret viden inden for programmering, systemudvikling, softwaredesign, -udvikling og -test, udviklingsprocesser og softwareteknologier.
- kan forstå og reflektere over faglig viden i relation til system- og softwareudvikling.
- kan forstå og reflektere over den teknologi og de processer der anvendes til moderne softwareudvikling.
- har udviklingsbaseret viden om innovation, miljøaspekter, etc. relevant for softwareudvikling.

Færdigheder
- kan anvende sin system- og softwarefaglige viden i udviklingen af nye, innovative løsninger, der baserer sig på softwareteknologi.
- kan på baggrund af sin faglige viden, udvælge den optimale teknologiske løsning til en konkret problemstilling og argumentere for valget af denne.
- kan udarbejde en relevant, softwareteknisk løsning til en konkret problemstilling, implementere et dette og sætte det i drift.
- kan formidle praksisnære og faglige problemstillinger og løsningsmuligheder til samarbejdspartnere og brugere både inden for og uden for softwareindustrien.

Kompetencer
- kan arbejde udviklings- og innovationsorienteret i forbindelse med softwarerelevante projekter.
- kan foretage proces- og projektstyring i forbindelse med udviklingsprojekter.
- kan samarbejde professionelt og etisk ansvarligt med fagfæller og med andre interessenter.
- kan i forbindelse med nye opgaver og problemstillinger tilegne sig ny viden, nye færdigheder og nye kompetencer i relation til system- og softwareudvikling.

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Nicklas Pedersen

HAS ON 19 JUNE 2025 PASSED THE EXAMINATIONS REQUIRED FOR THE

Bachelor's Degree Programme in Software Technology

with the specialisation Web Technology

AT AARHUS UNIVERSITY
AND HAS THUS BEEN AWARDED THE DEGREE

Bachelor of Engineering in Software Technology

Professionsbachelor som Diplomingeniør i softwareteknologi

Aarhus, 23 June 2025

Eskild Holm Nielsen
Dean of Aarhus University Faculty of Technical Sciences

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Pursuant to Ministerial Order no. 2674 of 28 December 2021, the Bachelor's Degree Programme qualifies graduates to positions in industry, nationally as well as internationally, where they will apply technology research results and scientific and technological knowledge to development work and to solving technical problems.
In addition, they will be able to take a critical approach to the acquisition of new knowledge in relevant aspects of the field of engineering and independently carry out engineering work.
Finally, they will be able to plan, implement and manage technical and technological plants and projects, which includes being able to integrate social, economic, environmental and work environment-related consequences in the solution of technical problems. They will also be able to participate in collaborative and managerial positions and contexts on a highly qualified level with people of different educational, linguistic and cultural backgrounds.
The degree programme will furthermore qualify graduates for postgraduate studies.

The Bachelor's Degree Programme in Software Technology is rated at: **210 ECTS**

Nicklas Pedersen

has obtained the following results:

	7-point scale	ECTS scale	Passed
Compulsory Courses			
SW1IDE-01 Introductory Digital Electronics 5 ECTS			Passed
SW1IKLT-01 Introduction to Electric Circuit Theory 5 ECTS	7	C	Passed
SW1MMLS-01 Mathematical Modeling of Linear Systems 5 ECTS	4	D	Passed
SW1MSYS-01 Microcontroller Systems 5 ECTS	7	C	Passed
SW1OPRG-01 Object Based Programming 5 ECTS	10	B	Passed
SW1VPR1-01 Practical Training 1 **Credits transferred based on prior education** Credit transferred			Passed
SW1PRJ1-01 Project 1 5 ECTS			Passed
SW2ALA-01 Applied Linear Algebra 5 ECTS	02	E	Passed
SW2DSD-01 Digital System Design 5 ECTS			Passed
SW2GFV-01 Interfacing the Physical World 5 ECTS			Passed
SW2ISE-01 Introduction to System Engineering 5 ECTS	7	C	Passed
SW2OOP-01 Objectoriented Programming 5 ECTS	7	C	Passed
SW2PRJ2-01 Project 2 5 ECTS	7	C	Passed
SW3DOA-01 Data Structures and Algorithms 5 ECTS	4	D	Passed

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	7-point scale	ECTS scale	Passed
SW3DSB-01 Digital Signal Processing 5 ECTS			Passed
SW3HAL-01 Hardware Abstractions 5 ECTS	4	D	Passed
SW3ISU-01 Embedded Software Development 5 ECTS			Passed
SW3NGK-01 Network Programming and Basic Communication Networks 5 ECTS			Passed
SW3PRJ3-01 Semester Project 3 5 ECTS	10	B	Passed
SW4BAD-01 Back-end Development and Databases 10 ECTS			Passed
SW4FED-02 Front-end Development 5 ECTS	10	B	Passed
SW4SWD-01 Software Design 5 ECTS	7	C	Passed
SW4SWT-01 Software Test 5 ECTS	7	C	Passed
SW4PRJ4-01 Semester Project 4 5 ECTS	7	C	Passed
Internship			
E5IPR-01 Internship 30 ECTS			Passed
Specialisation			
Computer Games Technologies 5 ECTS			Passed
KBTVOD-01 Business Economics 5 ECTS	02	E	Passed
STTHCD-01 Human-centered Design 5 ECTS	10	B	Passed
SWAFE-01 Advanced Front-end Development 5 ECTS	4	D	Passed
SWIOT-01 Internet of Things: Software Perspective 5 ECTS			Passed
SWITS-01 IT Security 5 ECTS	4	D	Passed
SWMAD-01 Mobile Application Development 5 ECTS			Passed
SWMAL-01 Machine Learning 5 ECTS			Passed

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	7-point scale	ECTS scale	Passed
SW7BAC-01 Bachelor's Project 20 ECTS E2E encrypted P2P data sharing	**12**	**A**	**Passed**

The validity of this document is confirmed

Aarhus, 23 June 2025

Louise Westh Møller
Administrative Officer

AARHUS UNIVERSITY

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Skills Profile for the Programme

Knowledge

- has basic knowledge of mathematics, physics and signal processing
- has basic knowledge within analogue and digital electronics
- has development-based knowledge within programming, system development, software design, software development and software testing, developmental processes and software technologies
- can understand and reflect on academic knowledge in relation to system and software development
- can understand and reflect on the technology and processes applied in modern software development
- has development-based knowledge about innovation, environmental aspects, etc. relevant to software development.

Skills
- is able to apply knowledge about systems and software to develop new, innovative solutions based on software technology
- is able to use academic knowledge to choose the optimal technological solution to a specific problem and argue in favour of this choice
- is able to produce a relevant software solution to a specific problem, implement the solution and put it into service
- is able to communicate practice-based and specialist issues and solutions to collaboration partners and users, both within and outside the software industry.

Competences
- is able to take an innovative and development-oriented approach in connection with software-related projects
- is able to carry out process and project management in connection with development projects
- is able to collaborate professionally and ethically with peers and with other stakeholders
- is able to acquire new knowledge, new skills and new competences in relation to system and software development in connection with new tasks and issues.

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Diploma Supplement

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1 INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1 Last name(s)
Pedersen

1.2 First name(s)
Nicklas

1.3 Date of birth (dd/mm/yyyy)
14/04/2000

1.4 Student identification number or code
Matriculation number: 202110455 / Civil registration number: 140400-7153

2 INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification and (if applicable) title conferred (in original language)
Professionsbachelor som Diplomingeniør i softwareteknologi
Bachelor of Engineering in Software Technology

2.2 Main field(s) of study for the qualification
Digital Systems, Mathematics and Signal Processing, Microprocessors, Programming Languages and Principles, Embedded Systems, Communication Systems and Networks, Information Technology.

2.3 Name and status of awarding institution (in original language)
Aarhus Universitet (Aarhus University) is an independent institution under the public-sector administration and supervised by the Ministry of Higher Education and Science and regulated according to the University Act with subsequent changes.

Aarhus Universitet (Aarhus University) is a university that has undergone external quality assurance by the Danish Accreditation Institution (in Danish: Danmarks Akkrediteringsinstitution), that is certified to follow the European Standards and Guidelines through registration in EQAR and membership in ENQA, in Denmark.

2.4 Name and status of institution (if different from 2.3) administering studies (in original language)
Not applicable / as above

2.5 Language(s) of instruction/examination
Teaching/examination at Aarhus University takes place in Danish and English, although other languages may be used when appropriate.

3 INFORMATION ON THE LEVEL AND DURATION OF THE QUALIFICATION

3.1 Level of qualification
Bachelor's degree at NQF/EQF Level 6 referring to First Cycle in the Bologna QF

3.2 Official duration of programme in credits and/or years
210 ECTS

3.3 Access requirements
Admission to the Bachelor's Degree Programme requires a) The Upper Secondary School Leaving Examination, or b) Higher Preparatory Examination, or c) Higher Business Examination or d) Higher Technical Examination. Applicants with other qualifications may be admitted after an assessment of their qualifications.

4 INFORMATION ON THE PROGRAMME COMPLETED AND THE RESULTS OBTAINED

4.1 Mode of study
Full-time.

4.2 Programme learning outcomes
The purpose of the programme is to educate software technology engineers of high professional standard. During the first four semesters, students complete introductory civil and structural engineering courses such as Mathematics, Physics, Electronics, Digital Systems, Programming Languages and Principles, Embedded Systems, Signal Processing and Microprocessors. The fifth semester is comprised of an internship with an industry partner. In the sixth og seventh semester, students have the opportunity to choose a specialisation. Also in the seventh semester, a Bachelor project is carried out, generally in collaboration with an industry partner. Graduates are able to apply scientific research and technological knowledge to engineering problems, allowing them to independently plan, perform and evaluate engineering tasks with a combination of practical, technical and management skills. They are qualified to work nationally as well as internationally in the field of engineering, in both public and private sector industry.

4.3 Programme details, individual credits gained and grades/marks obtained
Please refer to the enclosed transcript of records

4.4 Grading system and, if available, grade distribution table
http://ufm.dk/en/education-and-institutions/the-danish-education-system/grading-system

4.5 Overall classification of the qualification (in the original language)
Not applicable for Danish qualifications

5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

A completed Bachelor's degree at NQF/EQF Level 6 referring to First Cycle in the Bologna QF gives access further study within relevant fields at NQF/EQF Level 7 referring to Second Cycle in the Bologna QF. Specific admission requirements may be established by receiving programmes.

5.2 Access to a regulated profession (if applicable)

Graduates of the programme are entitled to use the title Bachelor of Engineering in Software Technology.

6 ADDITIONAL INFORMATION

6.1 Additional information

Aarhus University offers unique, alternative opportunities for research and education cutting across many different subjects, for the benefit of both students and researchers, as well as the authorities and the business community. These interdisciplinary combinations provide exceptional opportunities. Aarhus University combines quality in its services with diversity - a diversity that also makes sure that the university is in wide-reaching contact with all the important sectors of society.

Aarhus University has an international focus and makes targeted efforts to attract researchers and students from abroad.

Research and education

Academic values form the basis for all activities at Aarhus University. Via curious research, critical analysis and ongoing debate, researchers and students endeavour to find new ways to gain insight, understanding and education for the benefit of society as a whole. The university consists of four main academic areas. Combined, they cover the entire research spectrum - basic research, applied research, strategic research and research-based advice to the authorities. In all degree programmes, research and education are closely connected, and the research-based instruction - including teaching that spans the main academic areas - ensures the depth of the degree programmes.

A visionary university

The mission of Aarhus University is to ensure and develop knowledge, welfare and culture through research and research-based education, knowledge dissemination and external advice. The vision of Aarhus University is to belong to the elite of universities and to contribute to the development of national and global welfare via outstanding research and world-class degree programmes. The values of Aarhus University are based on the ethical challenges regarding freedom and independence that are described in the Magna Charta of European Universities. Staff and students at Aarhus University work enquiringly and critically, in open and dynamic interaction with the surrounding world.

6.2 Further information sources

For further information on this degree programme, please refer to http://studieguide.au.dk/en and the Aarhus University web site http://www.au.dk/en.

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7 CERTIFICATION OF THE SUPPLEMENT

7.1 Date
23 June 2025

7.2 Signature
Eskild Holm Nielsen

7.3 Capacity
Dean of Aarhus University Faculty of Technical Sciences

7.4 Official stamp or seal

8 INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

Please see the attached description of The Danish Higher Education System of April 2016