

### Student information

First names Binh

Last name Nguyen Xuan Student number 887799 Date of birth 15 Mar 2000

### Study rights leading to a degree

## ENG: AALTO BACHELOR'S PROGRAMME IN SCIENCE AND TECHNOLOGY AND M.SC. (TECH)

Education type Bachelor's and Master's Degree

Valid 1 Aug 2020-31 Jul 2027

Start date 1 Aug 2020

Completed degrees Bachelor of Science (Technology), 27 Feb 2023

Study right status Active

Academic year registrations Autumn 2024, attending

Spring 2025, attending

Active phase Master's Degree (120 cr)

Degree programme Master's Programme in Computer, Communication and Information Sciences

Major Machine Learning, Data Science and Artificial Intelligence



## Degrees

AALTO BACHELOR'S PROGRAMME IN SCIENCE AND TECHNOLOGY (ENG10)  BASIC STUDIES (ENG3045.A)	181 cr 60 cr 5 cr		PassHons 5	27 Feb 2023
			5	10 Doc 2021
	5 cr			19 Dec 2021
Grade average 4,9	5 cr			
Differential and Integral Calculus 1 (MS-A0111)		en	4	21 Oct 2020
Matrix Algebra (MS-A0001)	5 cr	en	5	8 Dec 2020
First Course in Probability and Statistics (MS-A0503)	5 cr	en	5	24 Feb 2021
Differential and Integral Calculus 2 (MS-A0211)	5 cr	en	5	22 Feb 2021
Differential and Integral Calculus 3 (MS-A0311)	5 cr	en	5	16 Apr 2021
Programming 1 (CS-A1110)	5 cr	fi	5	21 Dec 2020
Programming 2 (CS-A1120)	5 cr	en	5	28 May 2021
Data Structures and Algorithms (CS-A1140)	5 cr	en	5	31 Aug 2021
Computer-aided tools in engineering (ENG-A2001)	5 cr	en	Pass	19 Dec 2021
Numerical methods in Engineering (ENG-A1003)	5 cr	en	5	18 Feb 2021
Introduction Course for Bachelor's students (SCI-A1010)	2 cr	en	Pass	30 Apr 2021
Introduction to Artificial Intelligence (CS-C1000)	3 cr	en	Pass	16 Apr 2021
Introduction to Industrial Engineering and Management (TU-A1300)	5 cr	en	5	16 Dec 2020
LANGUAGE AND COMMUNICATION STUDIES (SCI10.B) Grade average 3	6 cr		3	20 Nov 2020
Finnish 1 (LC-7210)	3 cr	fi	2	20 Nov 2020
Integrated Oral and Written Skills (o,w) (LC-1117)	3 cr	en	4	18 Nov 2020
COMPUTATIONAL ENGINEERING (ENG3082) Grade average 4,92	65 cr		5	15 Dec 2022
Statics and Dynamics (COE-C1001)	5 cr	en	5	9 Dec 2020
Foundations of Solid Mechanics (COE-C2001)	5 cr	en	5	16 Dec 2021
Foundations of Continuum Mechanics (COE-C2002)	5 cr	en	4	7 Jun 2021



Course name and code	Scope	Lang	Grade	Date
Basic course on fluid mechanics (COE-C2003)	5 cr	en	5	29 Oct 2021
Thermodynamics and Heat Transfer (COE-C2007)	5 cr	en	5	8 Apr 2022
Materials Science and Engineering (COE-C2004)	5 cr	en	5	14 Dec 2021
Finite Element and Finite Difference Methods (COE-C3005)	5 cr	en	5	4 Jun 2021
Computational Engineering Project (COE-C3010)	10 cr	en	5	15 Dec 2022
Bachelor's Thesis and Seminar (JOIN.bsc)	10 cr	en	5	31 Aug 2022
Maturity Test (ENG.kyps)	0 cr	en	Pass	31 Aug 2022
Introduction to Optimization (MS-C2105)	5 cr	en	5	18 Feb 2022
Foundations of Discrete Mathematics (MS-A0402)	5 cr	en	5	14 Apr 2022
COMPUTER SCIENCE (SCI3031)	25 cr		5	27 Jun 2022
Grade average 5				
Databases (CS-A1153)	5 cr	en	5	27 Jun 2022
Computer Graphics (CS-C3100)	5 cr	en	5	19 Dec 2021
Web Software Development (CS-C3170)	5 cr	en	5	17 Aug 2021
Information Security (CS-C3130)	5 cr	en	5	28 Oct 2021
Programming Parallel Computers D (CS-E4580)	5 cr	en	5	29 May 2022
DATA SCIENCE (MINOR) (SCI3096)	25 cr		5	2 Dec 2022
Grade average 4,8				
Machine Learning D (CS-C3240)	5 cr	en	5	8 Apr 2022
Linear Algebra (MS-C1342)	5 cr	en	4	4 Jun 2021
Prediction and Time Series Analysis (MS-C2128)	5 cr	en	5	21 Dec 2021
Principles of Algorithmic Techniques D (CS-E3190)	5 cr	en	5	2 Dec 2022
Artificial Intelligence D (CS-E4800)	5 cr	en	5	14 Apr 2022

# Study modules

Course name and code Scope Lang Grade Date

No completed credits



### Courses

Course name and code	Scope	Lang	Grade	Date
Research Project in Machine Learning, Data Science and Artificial Intelligence D (CS-E4875)	5 cr	en	5	9 Aug 2024
Mechanical Testing of Materials D (MEC-E6007)	5 cr	en	5	7 Jun 2024
Statistical Natural Language Processing D (ELEC-E5550)	5 cr	en	4	17 May 2024
Federated Learning D (CS-E4740)	5 cr	en	4	8 May 2024
Software Project 2 (CS-C2140)	5 cr	en	5	8 May 2024
Software Project 1 (CS-C2130)	5 cr	en	5	8 May 2024
Capstone: Business Intelligence (57E00500)	6 cr	en	4	30 Apr 2024
Declarative Programming D (CS-E3220)	5 cr	en	5	20 Feb 2024
Production Systems Modelling D (MEC-E7001)	5 cr	en	5	20 Feb 2024
Business Analytics 2 (ISM-E1004)	6 cr	en	4	19 Feb 2024
Special Course in Machine Learning, Data Science and Artificial Intelligence: Machine Learning for Climate Action (CS-E407519)	5 cr	en	5	15 Feb 2024
Speech Recognition D (ELEC-E5510)	5 cr	en	4	15 Dec 2023
Methods of Data Mining D (CS-E4650)	5 cr	en	2	13 Dec 2023
Business Analytics 1 (ISM-C1004)	6 cr	en	4	8 Dec 2023
Reinforcement learning D (ELEC-E8125)	5 cr	en	5	7 Dec 2023
Programming parallel supercomputers D (CS-E4690)	5 cr	en	3	1 Dec 2023
Materials Safety D (MEC-E6003)	5 cr	en	2	20 Oct 2023
Machine Design (MEC-E1060)	5 cr	en	4	15 Oct 2023
Selection of Engineering Materials (MEC-E1070)	5 cr	en	4	13 Oct 2023
MySQL for Data Analytics (ISM-C2002)	6 cr	en	5	11 Oct 2023
Fracture Mechanics D (MEC-E8007)	5 cr	en	5	6 Jun 2023
Deep Learning D (CS-E4890)	5 cr	en	5	1 Jun 2023
Computational Social Science D (CS-E4730)	5 cr	en	5	29 May 2023
Information Visualization D (CS-E4840)	5 cr	en	4	20 Apr 2023



Course name and code	Scope	Lang	Grade	Date
Machine Learning: Advanced Probabilistic Methods D (CS-E4820)	5 cr	en	5	18 Apr 2023
Gaussian Processes D (CS-E4895)	5 cr	en	5	13 Apr 2023
Bayesian Data Analysis D (CS-E5710)	5 cr	en	4	24 Feb 2023
Machine Learning: Supervised Methods D (CS-E4710)	5 cr	en	5	21 Feb 2023
Operating Systems (CS-C3140)	5 cr	en	5	20 Feb 2023
Large scale data analysis D (ELEC-E5431)	5 cr	en	5	15 Feb 2023
Deep Learning with Python D (CS-EJ3311)	2 cr	en	Pass	11 Dec 2022
Statistical Inference (MS-C1620)	5 cr	en	5	1 Jun 2022
Numerical Analysis (MS-C1650)	5 cr	en	5	13 Apr 2022
Theory of Computation (CS-C2160)	5 cr	en	5	11 Apr 2022
Machine Learning with Python D (CS-EJ3211)	2 cr	en	5	8 Apr 2022
Basic principles in networking (ELEC-C7420)	5 cr	en	5	5 Apr 2022
Beginner's Python for Engineers (CS-EV0003)	3 cr	en	5	29 Mar 2022
Object oriented programming with C++ (ELEC-A7151) grade details can be found in course MyCourses page	5 cr	en	5	20 Jan 2022
Concurrent Programming D (CS-E4110)	5 cr	en	5	23 Dec 2021
Basic Course in C programming (ELEC-A7100)	5 cr	en	5	31 Aug 2021

## Partially completed courses

Course name and code Scope Lang Grade Date

No completed credits

Grade average 4,67

Total course credits 377 cr

The degree includes studies completed elsewhere with a total of 0 cr



#### GRADING SCALES AND DESCRIPTIONS FOR COMPLETED STUDIES

The scope of studies is measured in ECTS credits (cr). The average workload of 1 600 hours needed to complete one academic year of studies corresponds to 60 credits.

The average grade of study attainments is calculated from courses which have been graded on a scale from 0 to 5 (fail–excellent) and which the student has passed. The average grade is weighted according to the courses' scopes in credits. The average grade of a study module is only displayed if at least half of the scope of the study module has been graded using the scale from 0 to 5.

#### Language of study

Finnish 8 cr Swedish 0 cr English 369 cr

Language of study: fi (Finnish), sv (Swedish), en (English). The language of study is not defined for all completed studies.

#### Grading scale for completed studies

5 (excellent), 4 (very good), 3 (good), 2 (satisfactory), 1 (passable), 0 (fail)

Pass (Pass), Fail (Fail)

#### Grading scales for theses

5 (excellent), 4 (very good), 3 (good), 2 (satisfactory), 1 (passable), 0 (fail)

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