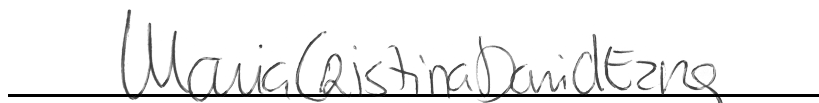


Maria Cristina De Oliveira Santos Matos David Ezra, Head of the Graduation Academic Unit of Instituto Superior Técnico, Universidade de Lisboa certifies that:

Afonso Pedro Antunes da Mota Gomes, holder of the Identity Card No. 14195554, born in Quarteira, Loulé and of PORTUGUESE nationality, obtained the degree of Licenciado in Computer Science and Engineering in the DEGREE (BSC) in COMPUTER SCIENCE AND ENGINEERING, on the 13th of July of 2021, with the final mark of 16 (sixteen) points, on a scale of 0 - 20, having been approved in the following curricular units.

Registration Certificate number 31401/IST/L/2023.



Maria Cristina De Oliveira Santos Matos David Ezra

Head of the Graduation Academic Unit

Instituto Superior Técnico, Lisboa, on the 22nd of February of 2023.

Curricular Unit	ECTS	Grade
LINEAR ALGEBRA	6	11 (eleven) points
DIFFERENTIAL AND INTEGRAL CALCULUS I	6	10 (ten) points
FOUNDATIONS OF PROGRAMMING	7.5	18 (eighteen) points
INTRODUCTION TO COMPUTER ARCHITECTURE	7.5	15 (fifteen) points
INTRODUCTION TO INFORMATION SYSTEMS AND COMPUTER ENGINEERING	3	16 (sixteen) points
DIFFERENTIAL AND INTEGRAL CALCULUS II	7.5	11 (eleven) points
INTRODUCTION TO ALGORITHMS AND DATA STRUCTURES	7.5	20 (twenty) points
LOGIC FOR PROGRAMMING	7.5	18 (eighteen) points
DISCRETE MATHEMATICS	7.5	12 (twelve) points
COMPLEX ANALYSIS AND DIFFERENTIAL EQUATIONS	7.5	13 (thirteen) points
MANAGEMENT	4.5	18 (eighteen) points
MECHANICS AND WAVES	6	14 (fourteen) points
OBJECT-ORIENTED PROGRAMMING	6	20 (twenty) points
OPERATING SYSTEMS	6	18 (eighteen) points
ANALYSIS AND SYNTHESIS OF ALGORITHMS	6	17 (seventeen) points
ELECTROMAGNETISM AND OPTICS	6	17 (seventeen) points
HUMAN-COMPUTER INTERACTION	7.5	17 (seventeen) points
PROBABILISTIC AND STATISTICS	6	18 (eighteen) points
THEORY OF COMPUTATION	4.5	15 (fifteen) points
DATABASES	6	15 (fifteen) points

Curricular Unit	ECTS	Grade
COMPUTER GRAPHICS	4.5	17 (seventeen) points
ARTIFICIAL INTELLIGENCE	7.5	18 (eighteen) points
COMPUTER ORGANIZATION	6	18 (eighteen) points
COMPUTER NETWORKS	6	17 (seventeen) points
SYSTEMS ANALYSIS AND MODELING	6	16 (sixteen) points
COMPILERS	6	19 (nineteen) points
COMPUTING AND SOCIETY	3	17 (seventeen) points
SOFTWARE ENGINEERING	7.5	16 (sixteen) points
DISTRIBUTED SYSTEMS	7.5	18 (eighteen) points