

# UNIVERSITY OF SEVILLE

## Academic Transcript

### ACADEMIC TRANSCRIPT FOR PEDRO LARA BENITEZ

PhD in Computer Science

2019 - 2022

#### Publications

1. Pedro Lara-Benítez, Manuel Carranza-García, Jorge García-Gutiérrez, and José C. Riquelme. "**Asynchronous dual-pipeline deep learning framework for online data stream classification.**" Integrated Computer-Aided Engineering, vol. 27, no. 2, pp. 101-119, DOI:10.3233/ICA-200617, Feb 2020.
2. Pedro Lara-Benítez, Manuel Carranza-García, José M. Luna-Romera, José C. Riquelme. "**Temporal Convolutional Networks Applied to Energy-Related Time Series Forecasting.**" Applied Sciences. , vol. 10, pp 2322, DOI:10.3390/app10072322, March 2020.
3. Pedro Lara-Benítez, Manuel Carranza-García, Francisco Martínez-Álvarez, and José C. Riquelme. "**On the performance of deep learning models for time series classification in streaming.**" 15th International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO 2020), vol. 1268, pp 144-154, Springer International Publishing, DOI:10.1007/978-3-030-57802-2\_14, Aug 2020.
4. Pedro Lara-Benítez, Manuel Carranza-García, and José C. Riquelme. "**An Experimental Review on Deep Learning Architectures for Time Series Forecasting.**" International Journal of Neural Systems, DOI:10.1142/S0129065721300011, Nov 2020.
5. Manuel Carranza-García, Jesús Torres-Mateo, Pedro Lara-Benítez, and Jorge García-Gutiérrez. "**On the performance of one-stage and two-stage object detectors in autonomous vehicles using camera data.**" Remote Sensing, vol. 13, no 1, p. 89, DOI:10.3390/rs13010089, Nov 2020.
6. Manuel Carranza-García, Pedro Lara-Benítez, Jorge García-Gutiérrez, and José C. Riquelme. "**Enhancing Object Detection in Autonomous Vehicles by Optimizing Anchor Generation and Addressing Class Imbalance.**" Neurocomputing, vol. 449, p. 229-244, DOI:10.1016/j.neucom.2021.04.001, Apr 2021.
7. Pedro Lara-Benítez, Luis Gallego-Ledesma, Manuel Carranza-García, and José M Luna-Romera. "**Evaluation of the Transformer Architecture for Univariate Time Series Forecasting.**" Advances in Artificial Intelligence. CAEPIA 2021. Lecture Notes in Computer Science, vol 12882, p. 106-115, Springer. DOI:10.1007/978-3-030-85713-4\_11, Sep 2021
8. Manuel Carranza-García, Pedro Lara-Benítez, José María Luna-Romera, and José C Riquelme. "**Feature Selection on Spatio-Temporal Data for Solar Irradiance Forecasting.**" 16th International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO 2021) Advances in Intelligent Systems and Computing, vol 1401, p. 654-664, DOI: 10.1007/978-3-030-87869-6\_62 Sep 2021.
9. Pedro Lara Benítez, Manuel Carranza García, David Gutiérrez Avilés, José Cristóbal Riquelme Santos. "**Data streams classification using deep learning under different speeds and drifts.**" Logic Journal of the IGPL, DOI:10.1093/jigpal/jzac033, Feb 2022.
10. Pedro Lara-Benítez, Manuel Carranza-García, José M. Luna-Romera, José C. Riquelme. "**Short-Term Solar Irradiance Forecasting in Streaming with Deep Learning.**" Under review in Neurocomputing, May 2022.

Thesis title	Time-series forecasting in streaming with deep learning.
Thesis Director	Dr. José C. Riquelme Santos
Start date:	10/2019
End date:	07/2022

## ACADEMIC TRANSCRIPT FOR PEDRO LARA BENITEZ

Master's degree in Software Engineering: Cloud, Data Science and IT Management

2018 - 2019

Code	Course	Year	Marks		Type	Cr	C
51790006	Fundamentals of Software Engineering for Cloud Systems	2018-19	Good	8.9	COMPULSORY	5	1
51790005	Fundamentals of Data Engineering	2018-19	Excellent	9	COMPULSORY	5	1
51790004	Fundamentals of IT Management and Professional Practice	2018-19	Excellent	9	COMPULSORY	5	1
51790025	Business Information Systems	2018-19	Pass	6	OPTIONAL	2	1
51790020	Machine Learning Engineering	2018-19	Good	8.3	OPTIONAL	5	1
51790026	Information visualization techniques	2018-19	Excellent	9	OPTIONAL	2	1
51790021	Introduction to Research	2018-19	Excellent	9	OPTIONAL	2	1
51790018	Big Data	2018-19	Excellent	9.5	OPTIONAL	5	1
51790017	Analysis of unstructured information	2018-19	Excellent	9.5	OPTIONAL	5	1
51790019	Data Science	2018-19	Excellent	10	OPTIONAL	5	1
51790013	Architectures for Software as a Service	2018-19	Excellent w/ Honors	10	OPTIONAL	5	1
51790012	Public infrastructures serving the administration	2018-19	Excellent	10	OPTIONAL	2	1
51790028	Final Year Project	2018-19	Excellent	9.7	DISSERTATION	12	1

Final average grade:	9.26/10
End date:	24/07/2019

## ACADEMIC TRANSCRIPT FOR PEDRO LARA BENITEZ

Bachelor's degree in Computer Engineering – Software Engineering

2014 - 2018

Code	Course	Year	Marks		Type	Cr	C
2050003	Digital Electronic Circuits	2014-15	Pass	6.7	CORE	6	1
2050004	Physical Fundamentals of Computer Science	2014-15	Good	7	CORE	6	1
2050006	Business Administration	2014-15	Good	7.2	CORE	6	1
2050008	Statistics	2014-15	Good	7.5	CORE	6	1
2050007	Linear and Numerical Algebra	2014-15	Good	8	CORE	6	1
2050001	Programming Fundamentals	2014-15	Excellent	9	CORE	12	1
2050002	Infinitesimal and Numerical Calculus	2014-15	Excellent	9	CORE	6	1
2050009	Computer Structure	2014-15	Excellent	9	CORE	6	1
2050005	Introduction to Discrete Mathematics	2014-15	Excellent	9	CORE	6	1
2050015	Computer Architecture	2015-16	Good	8	COMPULSORY	6	2

2050017	Discrete Mathematics	2015-16	Excellent	9	COMPULSORY	6	2
2050016	Software Architecture and Integration Software	2015-16	Excellent	9.4	COMPULSORY	6	2
2050013	Computer Networks	2015-16	Excellent w/ Honors	9.5	COMPULSORY	6	2
2050014	Operating Systems	2015-16	Excellent w/ Honors	9.6	COMPULSORY	6	2
2050011	Introduction to Software Engineering and Information Systems	2015-16	Excellent w/ Honors	9.9	COMPULSORY	12	2
2050012	Computer Logic	2015-16	Excellent w/ Honors	10	COMPULSORY	6	2
2050010	Analysis and Design of Data and Algorithm	2015-16	Excellent w/ Honors	10	COMPULSORY	12	2
2050019	Software Process and Management y Gestión	2016-17	Pass	5.4	COMPULSORY	12	3
2050025	Visualization, Modeling and Graphics	2016-17	Good	8	COMPULSORY	6	3
2050023	Network Architecture, Protocols, and Services	2016-17	Good	8.5	COMPULSORY	6	3
2050024	Artificial Intelligence	2016-17	Excellent	9	COMPULSORY	6	3
2050022	Multimedia Signal Processing	2016-17	Excellent w/ Honors	9.1	COMPULSORY	6	3
2050020	Requirements Engineering	2016-17	Excellent	9.5	COMPULSORY	6	3
2050021	Modeling and Numerical Simulation	2016-17	Excellent w/ Honors	10	COMPULSORY	6	3
2050018	Design and Testing	2016-17	Excellent w/ Honors	10	COMPULSORY	12	3
2050032	Evolution of Configuration Management	2017-18	Good	7	COMPULSORY	6	4
2050035	Planning and Management of IT Projects	2017-18	Good	7	COMPULSORY	6	4
2050036	Technology, Computer Science and Society	2017-18	Good	7	OPTIONAL	6	4
2050029	Soft Computing Applications	2017-18	Good	7.5	OPTIONAL	6	4
2050027	Intelligent Information Access	2017-18	Good	7.5	OPTIONAL	6	4
2050041	System Optimization	2017-18	Good	7.5	OPTIONAL	6	4
2050039	Software Engineering and Professional Trainship	2017-18	Excellent	9.5	COMPULSORY	6	4
2050045	Final Year Project	2017-18	Excellent	9	DISSERTATION	12	4

Final average grade:	8.55/10
End date:	25/09/2018

Spanish alphanumeric Marks	Translated as	Soanish Marks
MATRICULA DE HONOR (MH)	Excellent w/ Honors	10
SOBRESALIENTE (S)	Excellent	9.0-10
NOTABLE (n)	Good	7.0-8.9
APROBADO (A)	Pass	5.0-6.9
SUSPENSO (SS)	Fail	0-4.9