

# Lucia Montero Sanchis

M.SC. COMMUNICATION SYSTEMS · SPECIALIZATION IN DATA ANALYTICS

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## EXPERIENCE

### Schindler

Feb. 2019 - Sep. 2019

INTERN AND M.SC. THESIS STUDENT

Lausanne, Switzerland

- Combined the skills of patent professionals and product specialists to interrelate patents to a taxonomy of elevator systems and components, using a mapping strategy based on Information Processing and NLP.
- Implemented a processing pipeline to extract relevant information from patent documents.

### Dathena

Jul. 2018 - Sep. 2018

DATA SCIENTIST INTERN

Singapore

- Contributed to a clustering and classification pipeline for sensitive documents using ML and deep learning techniques with Python, Scala and Spark.
- Collaborated in the implementation of an Optical Character Recognition pipeline for noisy documents.

### Big Data Laboratory, Comillas Pontifical University

Jan. 2017 - Jun. 2017

RESEARCH ASSISTANT

Madrid, Spain

- Deployed pipeline using Kafka, Flume and Cassandra as streaming data sources for the analysis of tweets with Spark.
- Prepared distributed programming environment with Docker and Spark for future student projects.
- Tested the capabilities of bluetooth sensors as IoT devices and as an input to the processing pipeline.

### Transp-OR, Swiss Federal Institute of Technology (EPFL)

Jan. 2016 - Jul. 2016

RESEARCH ASSISTANT

Lausanne, Switzerland

- Simulated the Swiss railway train network using an optimization model and performed multivariate statistical analysis to study the effect of cyclic timetables and other factors on passenger satisfaction and economic cost.
- Determined with statistical significance which combinations of factors had the greatest impact on passenger satisfaction.

## EDUCATION

### Swiss Federal Institute of Technology (EPFL)

Sep. 2017 - Sep. 2019

M.SC. COMMUNICATION SYSTEMS WITH SPECIALIZATION IN DATA ANALYTICS

Lausanne, Switzerland

- Thesis: Technology Mapping and Patent Analytics.
- Semester Project: Analysis of student behavior during collaborative synchronous writing to automatically determine role taking and editing patterns.
- Key courses: Applied Data Analysis, Machine Learning, Deep Learning, Natural Language Processing (NLP), Distributed Information Systems.

### Comillas Pontifical University

Sep. 2012 - Sep. 2016

B.SC. TELEMATICS ENGINEERING

Madrid, Spain

- Thesis: Analysis of External Effects on Cyclicity in Passenger Railway Service.
- Key courses: Computer Networks, Operations Research, Computer Architecture.

### Swiss Federal Institute of Technology (EPFL)

Sep. 2015 - Sep. 2016

EXCHANGE PROGRAM IN COMMUNICATION SYSTEMS

Lausanne, Switzerland

- Key courses: Algorithms, Functional Programming, Parallelism and Concurrency, Convex Optimization.

## SKILLS AND LANGUAGES

**Software** Python, Java, Scala, C

**ML** PyTorch, Tensorflow, sklearn

**Analytics** Pandas, Matlab, R, SPSS

**Misc** Git, HTML, CSS, JS, SQL

**Spanish** Native

**French** Intermediate, DELF B1 (2010)

**Japanese** Basic, JLPT N5 (2010)