

# HECTOR OTERO MEDIERO

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## EDUCATION

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<b>MSc in Artificial Intelligence, University of Edinburgh</b>	<i>2018 - Present</i>
Deep Learning, Big Data Software and Probabilistic Modelling, Reinforcement Learning, Natural Computing and Neural Information Processing.	GPA: 80% (Distinction)
<b>BSc in Computer Science and Engineering, Carlos III University, Madrid</b>	<i>2013 - 2017</i>
Data Structures, Heuristics and Optimization	GPA: 9.05/10
<b>BSc in Computer Science at University of California, Irvine (UCEAP)</b>	<i>2016 - 2017</i>
Visual Computing, Information Retrieval, Natural Language Processing	GPA: 3.83/4

## SKILLS

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<b>Programming Languages</b>	Proficient: Python. Familiar with: C, C++ and Java.
<b>Python ML Libraries</b>	Numpy, SciPy, Matplotlib, Scikit-learn, Pandas, Keras and PyTorch.
<b>Software &amp; Tools</b>	Hadoop MapReduce, Docker, Rabbitmq, Git, SQL and Gitlab-CI.
<b>Languages</b>	English (C2), French (B2), Spanish (Native)

## EXPERIENCE

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**UNIVERSITY OF EDINBURGH** February 2019 - August 2019

Master's Dissertation. Supervisor: Neil Bramley

- Learning latent properties in physical environments with **Recurrent Neural Networks**. NumPy, scikit-learn and Pandas were used for data modelling and PyTorch for training the neural networks.
- In the supervised setting, a physical simulation was fed into an RNN whose task was to predict the mass of an object or its magnetic force. In a **Reinforcement Learning** setting, Deep Recurrent RL agents were trained to interact with the objects in the environment to guess their properties.

**INTELYGENZ** July 2017 - August 2018

*Data Scientist*

- Modelling and prototyping machine learning models for **time series analysis** in energy, finance and signal processing problems. Using **Keras** to prototype recurrent, convolutional and GAN neural networks and **SciPy** and **Scikit-learn** for classic machine learning approaches. Built data pipelines with **Gitlab-CI** and deployed solutions with **Docker** and RabbitMQ.

**UNIVERSITY OF CALIFORNIA IRVINE** September 2016 - July 2017

Bachelor's Thesis. Supervisor: Rina Dechter.

- Studied **Graphical Models** and the exact and approximation algorithms used to solve **Belief Updating**, **MPE** and **Marginal MAP** queries under the supervision of Dr Rina Dechter.
- Developed Beam Search versions of search algorithms and implemented them on top of a C++ library for Distributed AND/OR Optimization developed in Rina Dechter's research group.

**ZHILABS** April 2016 - June 2016

*Software Development Intern*

- Automatized the recollection of traffic data from web streaming services using **SELENIUM** and **ADB** (Android Debug Bridge) for Android/browser automation and **Wireshark** for traffic captures.

## **ACADEMIC ACHIEVEMENTS**

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2017: Extraordinary Prize by the Carlos III University to the best Computer Science graduate.

2016-2017: Study Abroad Scholarship at University of California granted by the Carlos III University.

2016: Excellence Prize to the best academic records for a 3rd year student of the Carlos III University.

2013-2016: Excellence Scholarship granted by the Community of Madrid.

## **EXTRA-CURRICULAR**

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March 2017 (University of California, Irvine): Tippers Hackathon 1st place. A webapp that, using the location of the people in the building, gave information about professors availability.

February 2016 (Carlos III University, Madrid): T3chFest Hackathon 1st place. An app that allowed to mix different means of transport.