

# Alejandro Hernández Artilles

MSc Computer Science Student

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[alejandrohdez-academic-web](https://alejandrohdez-academic-web.github.io)

[github.com/alejandrohdez00](https://github.com/alejandrohdez00)

## About Me

Creative, dedicated, multifaceted and passionate **MSc Computer Science and Engineering Student** at **Universidad Carlos III de Madrid**. Currently working in the design and implementation of the **Central Bank of Spain's** Digital Transformation Strategy. I have proven experience and deep knowledge in the main fields of Computer Science, but my real love is **Artificial Intelligence** and **Computational Theory**, that allow me to dabble into more abstract concepts, where I am able to bring out my full potential. My current objective is to continue learning and researching about these fields before pursuing a Ph.D.

## Work Experience

Oct. 2022 – **Software Engineer Internship** (Dept. of Digitalization and Innovation), **Central Bank of Spain**. [[Link](#)].  
pres.

Oct. 2021 – **Software Engineer Internship** (Dept. of Innovation), **Avanade** [[Link](#)].  
April 2022

## Education

2022 - 2023 **MSc in Computer Science and Engineering**, **Universidad Carlos III de Madrid**. [[Link](#)].

2018 - 2022 **BEng in Computer Science and Engineering**, **Universidad Carlos III de Madrid**. [[Link](#)].

## Skills

- Artificial Intelligence, ML and Deep Learning
- Computational Theory and Optimization
- Genetic Algorithms and Neuroevolution

## Languages

English **full professional proficiency**  
Spanish **native**

## Computer Skills

- Prog. lang.: **Python**, Java and C
- Python Frameworks**: **TensorFlow**, NumPy, Scikit-learn, Apache Spark, and PyTorch
- Databases**: SQL

## Awards and Grants

2022 **Honorable mention in Bachelor's Thesis**, **Universidad Carlos III de Madrid**

2018 – pres. **Tuition-fee Scholarships**, **Spanish Ministry of Education**

## Highlighted Projects

- 2022 **Bachelor's Thesis: Study and development of the algorithm Neuroevolution of Augmented Topologies in the Pac-man environment**, Thesis about the use of evolutionary algorithms to generate artificial neural networks with optimal parameters and topology for solving the game of Pac-man in deterministic and non-deterministic environments .
- 2021 **Analysis of USA businesses data (Grade: 10 / 10)**, Extensive work on data visualization and understanding using Python. A variety of Machine Learning models were used to predict the best position to place a given restaurant .
- 2020 **Comparative analysis of Artificial Neural Networks (Grade: 10 / 10)**, Comparative study between convolutional neural networks and multilayer perceptron for image classification. Python's libraries Tensorflow and Keras were used, among others .