

# DANIEL R. TORRES RUIZ

(+34) 617855542

✉ danielr.torresruiz@outlook.com 🌐 DRTorresRuiz 🌐 danieltorresruiz.me

## EDUCATION

---

<b>PhD Computer Science</b> <i>School of Computer Science @ <u>University of Nottingham, UK</u></i>	<i>Oct 2023 - now</i>
<b>Master of Business Administration (MBA)</b> <i><u>European Institute of Senior Management (IEAD)</u></i>	<i>Jul 2022 - Dec 2022</i>
<b>M.S. in Neuroscience</b> <i><u>Institute of Neuroscience of Castilla y León @ <u>University of Salamanca, Spain</u></u></i>	<i>Sep 2021 - Jul 2022</i>
<b>M.S. in Computer Science and Engineering. Data Science Specialization.</b> <i>Graduated with honors @ <u>University of Malaga, Spain</u></i>	<i>Oct 2019 - Jul 2021</i>
<b>Higher Professional Training in IT Systems and Network Administration</b> <i><u>I.E.S. Los Manantiales, Malaga, Spain</u></i>	<i>Sep 2014 - Jul 2016</i>
<b>B.S. in Computer Science and Engineering. Computation Specialization.</b> <i><u>University of Malaga, Spain</u></i>	<i>Sep 2013 - Jul 2018</i>

## WORK EXPERIENCE

---

<b>Research Assistant</b> <i><u>University of Nottingham, UK</u></i>	<i>Oct 2023 - now</i>
---	-----------------------

**Keywords:** *Robotics · Haptic guidance · Shared control systems · Motor learning · Motor rehabilitation · Cognitive performance*

<b>Researcher</b> <i><u>VICOMTECH, Spain</u></i>	<i>Feb 2023 - Jul 2023</i>
---	----------------------------

Data streaming and processing, and data engineering for Big Data use cases in European and national projects; Design and implement databases that follow the common data model standards for health care data; Implement a safe and secure environment for accessing data.

**Keywords:** *Python (Programming Language) · Apache Spark · Apache Kafka · OMOP · FHIR · Apache Airflow · Docker · Git · Gitlab · HDFS · Grafana · PostgreSQL · SQLAlchemy · FastAPI*

## **Software Developer and Data Scientist**

Sep 2022 - Jan 2023

Lexic.AI, Spain

OCR in scanned legal documents; Natural Language Processing (NLP) to classify, group, and analyze documents; AI-based systems.

**Keywords:** *Python (Programming Language) · PyTorch · Docker · React · FastAPI · MongoDB · Poetry · Git · Gitlab · Amazon Web Services (AWS) · OCR · NLP*

## **Research Assistant**

Sep 2019 - Sep 2021

Embedded Real-Time Systems (ERTIS) Research Lab @ University of Malaga, Spain

Research on Cloud, Fog, and Edge computing and Distributed Deep Neural Networks (DDNN) in Smart Cities; Big Data and Internet of Things (IoT) monitoring and action responses.

**Keywords:** *Python (Programming Language) · PyTorch · TensorFlow · Git · GitHub · Google Cloud Platform (GCP) · BigQuery · Apache Kafka · Zookeeper · Docker · Kubernetes · Internet of Things (IoT) · Edge, Fog, Cloud computing · Django · Deep Neural Networks · GPU · RPi*

## **Mobile Application Developer (Internship)**

Mar 2018 - Jun 2018

MOBGEN - Accenture Interactive, Malaga, Spain

Develop a mobile application to manage table football matches.

**Keywords:** *Swift · Clean Swift · Firebase · Android · Git · Google Cloud Platform (GCP)*

## **Main Software Engineer**

Apr 2017 - Sep 2017

CLAROFLEX, Malaga, Spain

ERP+CRM with JavaEE, Python, and MySQL for frameless glazing system industry.

**Keywords:** *Java · JavaEE · Python (Programming Language) · MySQL · HTML · CSS · JavaScript*

## **Software Developer (Internship)**

Mar 2016 - Jun 2016

SaluMente, Malaga, Spain

Analyse and classify MRI and CT brain images to detect early stages of Alzheimer's disease.

**Keywords:** *R · Java · Spring · MongoDB · Neo4J · MySQL · Weka · ML · Neuroimaging*

## PUBLICATIONS

---

### **Managing and Deploying Distributed and Deep Neural Models Through Kafka-ML in the Cloud-to-Things Continuum**

IEEE Access, 2021.

A. Carnero, C. Martin, **D.R. Torres-Ruiz**, D. Garrido, M. Diaz, B. Rubio

### **An open source framework based on Kafka-ML for DDNN inference over the Cloud-to-Things continuum**

Journal of Systems Architecture, 2021.

**D.R. Torres-Ruiz**, C. Martin, B. Rubio, M. Diaz

### **FogPi: A Portable Fog Infrastructure through Raspberry Pis**

9th Mediterranean Conference on Embedded Computing (MECO), 2020.

C. Martin, **D.R. Torres-Ruiz**, M. Diaz, B. Rubio

## CERTIFICATIONS

---

- Change Management
- Delegating
- Feedback Essentials
- Leading People
- Accelerating End-to-End Data Science Workflows
- Fundamentals of Accelerated Computing with CUDA Python
- Fundamentals of Accelerated Computing with CUDA C/C++
- Fundamentals of Deep Learning for Computer Vision
- Machine Learning
- Deep Learning and CUDA
- Introduction to the design and manufacture of electronic products
- Building a Recommendation System with Python Machine Learning and AI
- Functional Programming with Streams in Java 9
- Coaching
- Negotiating
- Strategic Thinking
- Team Management
- OF100: MongoDB Operations Fundamentals
- OF200: Diagnostics and Performance Tuning
- OF300: Production System Design
- OF450: MongoDB Ops Manager
- OF550: DevOps with Ops Manager
- Machine Learning and AI: Advanced Decision Trees
- Python: Advanced Design Patterns
- IT Essentials (CISCO)
- CCNA Discovery: Networking for Home and Small Businesses (CISCO)

## LANGUAGES

---

**Spanish** - Mother Tongue

**English** - Full Working Proficiency, IELTS 7.5 (C1)

## AWARDS

---

- **Master's degree extraordinary award**<sup>1</sup> (*Premio extraordinario* in Spanish) for the master's degree in computer science and engineering at the University of Malaga.
- **Honors in 6 graduate subjects** at the University of Malaga (*Matrícula de honor* in Spanish)
- I led the **winner team of the first hAIckathon** in Malaga.
- **Honors in 6 undergraduate subjects** at the University of Malaga (*Matricula de honor* in Spanish)
- **Graduated with honors in high school** (*Bachillerato* in Spanish)
- In secondary school, I received a perfect score (10.0/10.0). As a result, I was selected to participate in a **summer scientific campus at the University Carlos III of Madrid** in Spain.

## MASTER'S THESIS

---

### **Automated Analysis of Auditory Neuron Receptive Fields**

Jul 2022

*Master's thesis for the master's degree in Neuroscience @ University of Salamanca*

This research automates the process of getting receptive fields and frequency response areas of auditory neurons and their associated statistics given a file for each neuron with recording trials.

**Keywords:** *MATLAB · Auditory Neurons · Receptive Fields · Frequency Response Area*

### **Reinforced Concrete Bridge Defect Detection with Convolutional Neural Networks**

Jul 2021

*Master's thesis for the master's degree in Computer Science and Engineering @ University of Malaga*

YOLOv5 and other CNN models were evaluated on the task of detecting defects in concrete bridges using images during this project. We provided a thorough analysis using PyTorch.

**Keywords:** *Python (Programming Language) · PyTorch · Deep Learning (DL) · Convolutional Neural Network (CNN) · Image Processing · Defect Detection · Structural Health Monitoring (SHM) · YOLOv5 · Click · NeptuneAI · Docker · Kubernetes*

## EXTRACURRICULAR

---

### **Resident Language Assistant**

Sep 2018 - Jul 2019

*Mount St. Mary's College, Sheffield, England*

With no knowledge of the English language, I decided to move to England to learn it completely after my bachelor's degree. Mount St. Mary's College hired me as a Spanish language assistant, where my primary responsibilities were to assist Spanish teachers during speaking sessions and assist with boarding duties. I also got involved in boarding activities such as athletic, musical, cultural, and travel-related events.

---

<sup>1</sup>Awarded for Academic Excellence. The best academic results, the best academic record and the highest grade point average (GPA) in their class at university.