



# ARTURO MONCADA-TORRES


## Biomedical Data Scientist


 February 15, 1988


 Mexican

 +31 6 3838 8969

 arturomoncadatorres@gmail.com

 [www.arturomoncadatorres.com](http://www.arturomoncadatorres.com)

 @amoncadatorres

 [www.linkedin.com/in/arturomoncadatorres/](http://www.linkedin.com/in/arturomoncadatorres/)

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

### PROFILE

---

- Driven by **improving people's health** through the practical implementation of data-driven solutions using machine learning and artificial intelligence tools.
- Strong **problem-solving** and **critical-thinking capacities**, proven by the successful completion of numerous research studies in diverse areas of medical technology.
- Efficient **interpersonal communication skills** leading to collaborations with members of diverse multidisciplinary backgrounds (e.g., scientists, health professionals, technicians, engineers) across different teams, research groups, and institutions.
- Solid **scientific analytical skills** and **data analysis** abilities as evidenced by the authorship of several peer-reviewed papers and panel-reviewed research presentations.

↳ <http://www.arturomoncadatorres.com/publications> 

### EXPERIENCE

---

IKNL  (NL)

2018 – Today

Clinical Data Scientist

**Designed, developed, and implemented machine learning- and AI-based frameworks based on data from the Dutch National Cancer Registry (NCR)** to predict patient survival, improve treatment, and support decision-making processes in oncology.




**Developed and implemented federated learning applications** to predict outcomes while preserving patient privacy.

**Guided, managed, and supervised** master's/PhD students through their theses.

KU Leuven  (BE)

2014 – 2018

Doctoral Researcher

**Designed, developed, and implemented physiologically-based computational models** of different auditory processes and implantable hearing prosthesis in normal hearing , hearing impaired , and listeners with cochlear implants .

↳ In collaboration with Danmarks Tekniske Universitet (DK)

**Guided, managed, and supervised** master's students through their theses.

**Organized and coordinated** scientific meetings, conferences, workshops, and outreach activities for specialized and general audiences.

**Marie Curie scholarship** for Early Stage Researchers

SinTrafico  (MX)

2012


Mid Data Scientist


**Developed a data mining-based framework** to collect and analyze real-time traffic data to optimize travelling routes by identifying events and bottlenecks.

ETH Zurich  (CH)

2011, 2013

Research Assistant

**Implemented a machine learning-based algorithm** for movement classification using **wearable sensors' (accelerometer, gyroscope, barometer)** data of healthy and stroke participants with an accuracy of >90% .

**Designed experiment, collected, and analyzed inertial sensor data** to quantify white cane usage to improve travel aids of visually impaired people .

## EDUCATION

---

ETH Zürich (CH)  
2012 – 2014

Master of Science in Biomedical Engineering (Cum Laude)  
Focused on Bioimaging (MRI) and Medical Image Analysis  
*MSc Thesis:* MR Measurements of Dynamic Changes in Aortic Vessel Area and Pulse Wave Velocities Induced by Simulated Obstructive Apnoea  
*Semester Thesis:* Image Interpolation for Reconstruction of 4D MRI Data  
└ In collaboration with U. of Basel (CH)  
**Excellence scholarship** for Master's studies

U. Iberoamericana (MX)  
2007 – 2011

Bachelor of Science in Biomedical Engineering (Summa Cum Laude)  
Major in Instrumentation  
*Thesis:* Activity Classification in Healthy Subjects Using an Enhanced IMU  
└ In collaboration with ETH Zürich (CH)  
**Developed the hardware and signal processing algorithms** for a home control system based on electrooculography. National Instruments University Challenge first national prize [🔗](#).  
**Excellence scholarship** for Bachelor's studies

## SKILLS

---



### PROGRAMMING + INFORMATICS



Python  
MATLAB  
MS Office



LabVIEW  
LaTeX  
R  
C



Git



### LANGUAGES



Spanish (native)  
English



Dutch (studying)  
French



German  
Czech  
Italian

## KNOWLEDGE

---

Machine learning + AI  
Computational modelling  
Human anatomy + physiology  
Algorithm development  
Data processing, analysis, and visualization  
(Medical) image analysis



### SPECIAL ABILITIES

---

Focused attention to detail  
Out-of-the-box thinking  
Fast learner driven to action  
Team leader + team player  
Interdisciplinary communication  
Project management

## EXTRACURRICULAR ACTIVITIES

---

Community manager  
Engaged with and generated content for social media audience.  
└ ExpORL, ETH BEEZ  
Student society delegate  
Represented students at university academic councils; organized events.  
└ ETH Zurich, U. Iberoamericana



### HOBBIES

---

Mid-distance running  
Volleyball  
└ Indoor, beach  
Dancing  
└ Latin, swing, ballroom  
Nintendo gaming  
Pop data science projects

References are available upon request