

# Curriculum Vitae



## General Information

First and Last Name

Email

Website · LinkedIn · Github

**Dr. Mikel Sagardia**

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[mikelsagardia.io](http://mikelsagardia.io) · [www.linkedin.com/in/mikel-sagardia/](https://www.linkedin.com/in/mikel-sagardia/) · [github.com/mxagar](https://github.com/mxagar)

## Work Experience

Period

Position Held

Employer

Address of Employer

Main Activities and Responsibilities

2023.05.01 – present

**Senior Data Scientist and Machine Learning Engineer**

**Deutsche Telekom**

Friedrich-Ebert-Allee 140, 53113 Bonn (Germany) · Remote from Spain

- Design and development of object detection applications
- Research and development of vectorization algorithms for images and text
- Implementation of data clustering and downstream applications
- Discovery of use cases for Generative AI technologies
- Development, benchmarking and deployment of LLM and RAG-based solutions

Period

Position Held

Employer

Main Activities and Responsibilities

2022.04.01 – 2023.04.30 (1 year and 1 month)

**Computer Vision and Machine Learning Engineer**

**Self Employed**

- Built machine vision and machine learning applications as a contractor
- Supported and trained companies in the field of deep learning

Period

Position Held

Employer

Address of Employer

Main Activities and Responsibilities

2020.05.01 – 2021.12.31 (1 year and 8 months)

**Senior Researcher**

**Vicomtech, Fundación**

Mikeletegi 57, 20009 Donostia-San Sebastián (Spain)

- Coordinated and executed European and national projects
- Acquired new projects on computer vision, machine learning and robotics
- Supervised Ph.D. students

Period

Position Held

Employer

Address of Employer

Main Activities and Responsibilities

2019.03.01 – 2020.03.31 (1 year and 1 month)

**Project Engineer in Machine Vision**

**MVTec Software GmbH**

Arnulfstr. 205, 80634 Munich (Germany)

- Managed and developed machine vision projects for key industry partners
- Trained customers and distributors on 3D vision and robotics
- Presented the Anomaly Detection feature at the MVTEC Innovation Day 2020
- Provided second level technical support in a broad spectrum of machine vision topics

Period

Position Held

Employer

Address of Employer

2008.04.01 – 2018.12.31 (10 years and 9 months)

**Research Engineer in Robotics**

**German Aerospace Center (DLR), Institute of Robotics and Mechatronics**

Muenchner Str. 20, 82234 Wessling (Germany)

## Main Activities and Responsibilities

- Led a 5-year project that built a VR framework for satellite on-orbit servicing
  - Researched into collision and force computation methods for haptic rendering
  - Coordinated and executed cooperation projects for industry partners (VW, Bosch)
  - Published of 22+ papers at IEEE T. on Haptics / ICRA / VR, ACM VRST
  - Presented robotic applications on trade fairs and congresses (Automatica, VW, etc.)
  - Supervised 20+ students during their master's theses and internships
- Achievements and **Awards**
- Best Video Award Finalist at the IEEE ICRA, 2014
  - Best Paper Award at the 5th International Conference VAMR, 2013
  - Short Paper Honorable Mention at the IEEE VR, 2012

## Education and Training

Period  
Qualification  
Selected Courses

2017.08 – present

**MOOC Certificates** · [github.com/mxagar/course\\_compilation](https://github.com/mxagar/course_compilation)

- Deep Learning Nanodegree (150+ hours) · Udacity
- Computer Vision Nanodegree (120+ hours) · Udacity
- Data Science Nanodegree (150+ hours) · Udacity
- Machine Learning DevOps Engineer Nanodegree (150+ hours) · Udacity
- IBM Machine Learning Professional Certificate (85+ hours) · Coursera / IBM

Period  
Qualification  
University  
Dissertation Title

2013.12 – 2018.11

**Ph.D. in Electrical and Information Engineering (Dr.-Ing.), 2019**

Technische Universität München, TUM (Germany)

Virtual Manipulations with Force Feedback in Complex Interaction Scenarios

Period  
Qualification  
Universities

2002.09 – 2008.02

**M.Sc. in Mechanical Engineering (Ingeniero Industrial), 2008**

Universidad de Navarra, TECNUN (Spain) and  
Technische Universität München, TUM (Germany)

Achievements, **Awards** and  
Scholarships

- Second Best Diploma Thesis Prize · Association of Engineers of Gipuzkoa
- Erasmus and Leonardo scholarships, exchange student at TUM
- High School Excellence Award for university access · Basque Government

## Technical Skills

Programming Languages  
Machine/Computer Vision  
Machine Learning  
DevOps, MLOps  
Web Development  
Cloud & Big/Distributed Data  
Software Architecture

Python, C/C++, SQL, Bash, R

OpenCV, Halcon, Open3D, PCL

Pytorch & Lightning, Tensorflow & Keras, Scikit-Learn, Numpy, Pandas, Matplotlib, SciPy, NLTK, spaCy, HuggingFace Transformers & Diffusers, LangChain

Docker & Kubernetes, Git & CI/CD, MLflow, W. & Biases, DVC, Pytest

FastAPI, Flask, Streamlit, Gradio, HTML & CSS

AWS, Azure, PySpark, ElasticSearch & Kibana

Object Oriented Programming, Design Patterns, Data Structures

## Languages

Mother Tongues  
Advanced Level (C1/2)

**Spanish, Basque** (*Euskararen Gaitasun Agiria* · EGA)

**German** (*Goethe-Zertifikat C1*), **English** (Certificate in Advanced English · CAE)

## Additional Information

Publications  
Selected Projects

<https://mikelsagardia.io/publications/>

[https://github.com/mxagar/project\\_compilation](https://github.com/mxagar/project_compilation)