

# Alejandro Cedillo Gámez

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## Education

### Åbo Akademi / Universitat de les Illes Balears

Double master's program: M.S. in Data Science/ M.S. Computer Vision and Intelligent Systems

Palma, Spain

Turku, Finland

Sept 2023 – May 2025

- **EDISS:** [🔗](#) Full Erasmus Mundus Scholar (7% selection rate)

- **Coursework:** Machine Learning, Deep Learning, Image Reconstruction, Computer Vision

### Tecnológico de Monterrey

B.S. Computer Science and Technology, Minor in Intelligent Systems (AI)

Monterrey, México

Aug 2018 - Dec 2022

- **Coursework:** Algorithms, Data Structures, Statistics, Software Architecture, NLP

## Experience

### Internship on SW engineering (AR, AI)

Ainak Oy

Espoo, Finland

May 2024 – Aug 2024

- Developed an AR app in Swift utilizing LiDAR technology for accurate real-time measurements in renovation and construction projects.
- Researched and implemented a Python-based AI recommendation system for automatic 3D model placement in Unity, enhancing interior design workflows.

### Software Engineer Research internship

AILiveSim

Turku, Finland

Oct 2023 – Dec 2023

- Conducted experiments with different YOLO versions to improve robustness for object detection models in maritime environments.
- Focused on out-of-distribution detection using simulated data and data augmentation to minimize the distribution gap between simulated and real-world datasets.

### Software Developer Intern

Kalypso - A Rockwell Automation Business

San Pedro, México

Jan 2022 - April 2023

- Developed functionalities for a warehouse simulation, including user controls and information display.
- Designed 3D models and configured environments in Unity using C# to enable visualization of robot simulations.

### Software Developer Intern

Amazon

Ciudad de México, México

Feb 2021 - June 2021

- Design of a chatbot and creating the triggers for the automation of emails. AWS backend developer working with Lex, Lambda, and DynamoDB, using Python and JavaScript.

## Projects and Activities

### Explainability in Deep Learning Segmentation Models for Breast Cancer by Analogy with Texture Analysis

Apr 2024

Published the research on XAI methods to improve the interpretability of medical experts of a detector for cancer on the [Medical Imaging with Deep Learning \(MIDL\)](#) [🔗](#) magazine based on Texture analysis and DL models such as DeepLabV3, FCN and U-Net.

### Firefighter Problem [🔗](#)

Feb 2022

- Researching and solving combinatorial optimization problems with hyper-heuristics through evolutive programming.
- Tools Used: Python, Pandas, NumPy, Matplotlib and searching algorithms (BFS, DFS, etc).

### Vantec Club

June 2022 - Dec 2022

- Tested different methods of identification in underwater objects working with point clouds data for an autonomous self-driving submarine. Working along the Autonomous vehicles club at the university.

## Technical Skills

### Custom Operating System

**Programming Languages:** Python, C/C++, C#, SQL, R, Java, JavaScript

**Technologies:** OpenCV, TensorFlow, Scikit-Learn, Docker, Azure, AWS

**Project Management:** AGILE, SCRUM, JIRA, GitHub, Gitlab, Bitbucket, Slack

### Languages:

Spanish (Native)

English (C1)