# **ÀLEX BATLLE CASELLAS**



# **EDUCATION**

Bachelor's Degree - Mathematics and Data Science

CFIS - UPC

Sept 2018 - ongoing

**▼** FME+FIB+ETSETB

Majoring in Mathematics and Data Science and Engineering in a double degree 5-year study plan within CFIS (cfis.upc.edu), a very selective excellence center within UPC, with an average mark of 7.58/10. Specially interested in Deep & Reinforcement Learning and Artificial Intelligence.

International Baccalaureate + Spanish Baccalaureate

Institut Moisès Broggi (institutbroggi.org)

M Sept 2016 - June 2018

Barcelona

Graduated with honours (matrícula d'honor).

# **EXPERIENCE & PROJECTS**

TU Delft

Research Intern

February 2023 - ongoing

Oelft, NL

Research visit to write my Bachelor's degree Final Thesis on autonomous robot exploration via GNNs and RL.

Qualcomm

**Engineering Intern** 

## June 2022 - February 2023

Work on several tasks regarding AI and telecommunication networks.  $\ensuremath{\mathsf{HP}}$ 

**Software Engineering Intern on Robotics** 

Summer 2021

♦ Home – remote

Parsing ROS . launch files using C++ and Qt to represent them graphically similar to rosgraph.

IDAO 2021 & 2022

International Data Analysis Olympiad

Mar 2021, Feb 2022

4th and 5th editions of IDAO. Within the 30 best teams (in public test data) in an image classification and regression task (2021) and in a GNN regression task (2022) using PyTorch.

Math & Algorithmics Activities

Mathematics activities as a high school student.

**2014 - 2018** 

**♀** FME, Barcelona

- Estalmat (estalmat.cat), Math Summer Camp (mathactivities-bcntech.org).

Mathematics & Science tutor

Tutoring sessions for secondary and university students

Barcelona

One-on-one sessions with several students (university, pre-university and high school levels), achieving good results in the areas of mathematics and science. Other projects

Some of my programming, personal, and Uni projects.

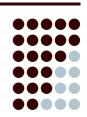
Fall 2018 - ongoing

▼ The Earth

iGo Fantasy\_Football CppLEX kt Random Partition Kernels paper

#### PROGRAMMING SKILLS

Python C/C++ Java R SQL Matlab



#### TECHNICAL SKILLS

Latex & Markdown

**Machine Learning** 

Reinforcement Learning

**Deep Learning** 

ROS

**Multivariate Statistics** 

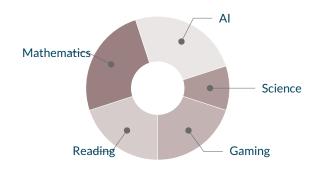
PyTorch

Git Linux environment

### **LANGUAGES**

- Catalan. Native speaker.
- English. Fluent speaking and writing.
  TOEFL exam.
- Spanish. Native speaker.

# **INTERESTS**



# **VOLUNTEER WORK**

Summer camp monitor

CE Catecolònies Sant Martí

- Summer camp from Aug 1-10 every year.

**ACFAEC** 

Associació Catalana de Famílies i Amics d'Estalmat i les Ciències

- Collaboration within ACFAEC in science and math activities.