

# EMMA FRAXANET

## Physicist and AI MSc student

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## EDUCATION

### MSc Intelligent Interactive Systems

#### Pompeu Fabra University

Set 2020 – Ongoing Barcelona, Spain

- Temporary Average Grade 9.1/10
- Honors in *Machine Learning, Autonomous Systems and Data Driven Social Analytics*
- Master Thesis / *QMIX and Logistic Q-Learning*

### Erasmus+ Programme: BSc Physics

#### Universiteit van Amsterdam / Vrije Universiteit

Set 2019 – Feb 2020 Amsterdam, The Netherlands

- Modules taken from the Advanced Matter and Energy Physics MSc.

### BSc Fundamental Physics

#### University of Barcelona

Set 2016 – Jun 2020 Barcelona, Spain

- Average Grade 7.6/10
- Honors in *Informatics and Electrodynamics*
- Bachelor Thesis / *Few-Body study of the two-component Bose-Hubbard model*

### Highschool Diploma

#### Institut Francesc Ribalta

2015 Solsona, Spain

- Graduated High School with Honors (9.98/10)
- University admission tests: 13.52/14 (*Excellence distinction for university admission test, Generalitat de Catalunya*)

## EXPERIENCE

### Internship: Smart Nano-Bio-Devices

#### Max Planck Institute for Intelligent Systems

2017 Stuttgart, Germany

- Projects / *Nanocomposite based micro-swimmers for degradation and removal of herbicides and microjet and Bacteria propelled microtubes*

### Summer school: Modern Physics at All Scales

#### Leiden Universiteit

2018 Leiden, The Netherlands

### Erasmus+ Programme: Diversity in the cultures of physics

#### University of Manchester, University of Sheffield, Universitat de Barcelona, Universitat Autònoma de Barcelona

2019 Barcelona, UK

- Workshops and lectures about Physics research environments and Diversity in STEM fields

## PROJECTS

To see the projects I have worked on during my education you can check my portfolio!

[emmafrax.github.io](https://emmafrax.github.io)

## RESEARCH INTERESTS



Social Computing



Graph Theory and Complex Networks



Multi-Agent Reinforcement Learning

## PROGRAMMING SKILLS

Python

LaTeX

Fortran

MatLab

I am familiar with tools such as: SpaCy, NLTK, Mallet, Scikit-learn, Matplotlib, several Social Media Platforms API's (Tweepy, Praw...), Selenium, GEPHI...

## LANGUAGES

Spanish

Catalan

English



TOEFL IBt (112/120) (2020)

## EXTRA-CURRICULAR

### Young IT Girls Volunteer

#### Multimedia and Activities Team

2021 – Ongoing

### Pintem la Facultat

#### Coordinator

2018 – 2019

Artistic and participative project based on recognizing female roles in the STEM community. ([link here](#))

### Tutoring experience

#### Acadèmia Formació Miro

2018 – 2019