

# Margarita Geleta

rita.geleta@jediupc.com

+34 671 668 885

## PARTICULARS

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### EDUCATION

#### 2017-present Universitat Politècnica de Catalunya (UPC)

*Bachelor of Data Science and Engineering*

· Active member in the *Barcelona School of Informatics* (FIB) governance.

· **Courses:** *Data Analysis, Machine Learning, Mathematical Optimization, Deep Learning, Parallelism and Discrete Systems, Database Systems, Information Visualization, Information Retrieval and Analysis, Algorithmics, Statistics.*

### RESEARCH INTERESTS

My research interests span the areas of *Data Science* and *Machine Learning*, along with its subdomains *Deep Learning* and *Natural Language Processing* (NLP). I have a specific interest in *Deep Learning* applied to audio & acoustic domain, *Signal Processing, Audio Feature Extraction* and *Audio Steganography*. Also, my interests fall in the field of *Sentiment & Toxicity Analysis* and *Hate Speech Detection*.

## EXPERIENCE

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### PROFESSIONAL EXPERIENCE

#### 2019-present JEDI Junior Enterprise (JEDI UPC)

Feb. 2020 -  
present

*Instructor at Machine Learning and Python course (40 h)*

- Adapted the course for online teaching due to the coronavirus pandemic and tutored students through online platforms.
- Adapted materials for a blind student and guided them throughout the course.

Aug. 2019 -  
present

*Front-end developer*

- Programmed the interface of a web-application for *Area Cooling Solutions S.A.* company.
- Overhauled the output of a microcontroller IMU sensor and upgraded the web-application visualizations.

Jun. 2019 -  
Feb. 2020

*Teaching Assistant at Machine Learning and Python course (40 h)*

- Prepared coursework on *Multidimensional Scaling, Machine Learning* and *Optimization*.
- Helped students with *Exploratory Data Analysis* in their projects.

May 2020 -  
Sept. 2020  
4 months

#### ProxiShop

*Co-founder & Developer*

- Developed a trading multi-platform e-commerce solution for local farmers and small businesses to reactivate the economy in Catalonia in times of the pandemic and the confinement.
- Presented the project in several startup competitions, among which - *SmartCatalonia Challenge 2020* and *RuralApps 2020*, all of them funded by the Government of Catalonia.
- Joined the 1000 European Initiatives by *Junior Enterprises Europe* (JEE) & *Junior Enterprises Global* (JEG).

## RESEARCH EXPERIENCE

Feb. 2021 -  
present

### Bustamante Lab (Stanford University)

Ongoing

*DL Researcher*

· Explored novel Deep Learning techniques such as *Variational Autoencoders* (VAEs) with genomic data in a focus in dimensionality reduction, compression, privacy, and data simulation.

Sept. 2020 -  
Mar. 2021

### Image Processing Group (GPI)

Ongoing

*DSP & DL Researcher*

· Implemented classic Audio Steganography methods from the psychoacoustic approach - *LSB algorithm*, *Phase Coding* and *Echo Hiding*.

· Investigated Deep Learning architectures for Audio Steganography and trained an Audio Auto-encoder using *Short-Time Cosine Transform* for *Audio Feature Extraction*.

Got the Extended Abstract accepted to WiCV 2021.

## LEADERSHIP & POSITION OF RESPONSIBILITY

2019-present

### JEDI Junior Enterprise (JEDI UPC)

Oct. 2020 -  
present

*President*

· Had the honor to present the candidature and receive a prize of €1,000 for the best *Student Association in Education* at the *Polytechnic University of Catalonia* (UPC).

· Arranged collaborations with other associations from the *Polytechnic University of Catalonia* (UPC) and with organizations from the JE Network, at National and European levels, such as CEJE - the *Spanish Confederation of Junior Enterprises*, and *Junior Enterprises Europe* (JEE).

Sept. 2019 -  
Oct. 2020

*Vice-President & Secretary*

· Directed the organization of JEDI Academy courses, winter edition 2020.

· Organized bimonthly workshops on Tech topics with +20 attendees at the *Barcelona School of Informatics* (FIB). Ran introductory R language workshop.

· Represented the Junior Enterprise in several Tech & startup events, such as *Tech Spirit Barcelona* and *SmartMobility Congress*.

2018-present

### FIB Visiona

Nov. 2020 -  
present

*President & Main Organizer*

· Directed 4-people team for the first online edition of the FIB Visiona career fair with more than 150 attendees, 40 recruiters and €12,000 in sponsorships raised.

· Directed 10-people team for the second online edition of the FIB Visiona career fair with more than 150 attendees, 12 companies, 75 recruiters and €23,000 in sponsorships raised.

Oct. 2018 -  
present

*Co-founder & ExBo Member*

· Co-founded FIB Visiona association, in charge of connecting UPC students with Tech companies.

· Directed 10-people team for the first edition of the FIB Visiona career fair with more than 200 attendees, 126 recruiters and €100,000 in sponsorships raised.

2017-present

### Universitat Politècnica de Catalunya (UPC)

Oct. 2018 -  
present

*Student representative at the Standing Committee*

· Elected by *Barcelona School of Informatics'* Board members. The Standing Committee is the executive and permanent representative of the School Board.

· My responsibilities included discussing the most important decisions of the School.

Oct. 2018 -  
present

*Student representative at the School Board*

- Elected by *Barcelona School of Informatics'* student body. The School Board is the governing body of the School.
  - My main responsibility was to represent the opinion of all the students from the School.
- Oct. 2017 -  
Mar. 2019      *Student representative at CAGCED*
- Member and first student representative at the *Academic Committee of the Data Science and Engineering Degree* (CAGCED).
- 2020**      **Junior Enterprises Global (JEG)**
- Sept. 2020 -  
Nov. 2020      *Partnerships Manager*
- Worked on the Value Proposition, support documents and contact list.

## ACTIVITIES

- 2017-2020**      **Universitat Politècnica de Catalunya (UPC)**
- Oct. 2018 -  
Nov. 2020      *Member of the Barcelona School of Informatics Student Delegation (DEFIB)*
- Active member at the *Communication Commission*.
  - Designed posters to highlight the contributions of female scientists and engineers, which now remain at the School's Museum.
- Oct. 2017 -  
May 2018      *Member of the TelecomBCN Student Delegation (DAT)*
- Of the *Barcelona School of Telecommunications Engineering* (ETSETB).

## VOLUNTEERING

- 2019-2020**      **HackUPC**
- Mar. 2019 -  
Feb. 2020      *Designer & Organizer*
- Led brand redesign in 30-person team for HackUPC 2019, Spain's largest student hackathon with 700 attendees. Designed web, merchandising and social network post templates.
- 2018-2019**      **Universitat Politècnica de Catalunya (UPC)**
- Summer  
2019      *Volunteer at the Summer Course of Algorithmics and Programming*
- Assisted teenagers with learning C++ and Python and monitored the visit to the School's Museum.
- Autumn  
2019      *Coach & Mentor*
- Finished a *Coaching and Mentoring course* (10 h) at the *Polytechnic University of Catalonia* to become a mentor of Data Science & Engineering degree freshmen for seven weeks.
- Summer  
2018      *Volunteer at the Summer Course of Algorithmics and Programming*
- Assisted teenagers with learning C++ and Python and monitored the visit to the *Marenostrum 4* Supercomputer at the *Barcelona Supercomputer Center* (BSC).

## RELEVANT PROJECTS

- Nov. 2020**      **Forbidden Territories**
- 2 weeks      *Data Scientist & Developer*
- Created a NLP multilingual model (7 languages) with contextual embeddings which detected sections in lyrics which had a high probability of being censored.
  - Developed a web-application with *Lyric Censorship Analyzer* model deployment.

· Presented this project at the Sónar+D Innovation Challenge 2020.

**Mar. 2020    ConfinApp Commerce**

1 week    *Front-end developer*

· Designed a mobile application to promote the proximity commerce during the first stage of the confinement. This project has been one of the highlighted projects of Hackovid, a hackathon by the Government of Catalonia.

## HONORS & AWARDS

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<b>2021</b>	CS Department Dean's Fellowship for AY 21/22, Donald Bren School of Information and Computer Sciences - in recognition of outstanding research potential.
<b>2021</b>	Fellowship for CS Ph.D. program by the Department of Computer Science, UC Irvine.
<b>2020</b>	Nominated for the <i>Dona TIC Award</i> (2nd place), as a recognition for my contributions to the STEM world of new technologies and as a role model to young women.
<b>2018</b>	Received a " <i>Matricula de Honor</i> " academic honor for obtaining a 10/10 in the Parallelism and Distributed Systems course.
<b>2017</b>	Awarded for the Best High School research project in <i>La Selva</i> about video game development, at the " <i>IV Mostra de Treballs de Recerca</i> ".
<b>2017</b>	Finished High School with Honors ( " <i>Matricula de Honor</i> " academic honor).

## PUBLICATIONS

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- [1] Costa-jussà, M.R., Geleta, M., et al. *MT-Adapted Datasheets for Datasets: Template and Repository*. arXiv:2005.13156 preprint, 27th May 2020.

## TECHNICAL SKILLS

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<b>Programming</b>	C++, C, C#, Python, R, Dart.	<b>Scripting</b>	JS, PHP, Bash.
<b>Markup</b>	HTML5, CSS3.	<b>Frameworks</b>	Django, Flutter, ReactJS.
<b>Databases</b>	PostgreSQL, SQLite.		

## LANGUAGES

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**Spanish, Catalan & Russian:** native.

**English:** proficient in spoken and written English. TOEFL iBT (Score 101), *November 2020*.

Appointment number: 9733 7112 0335 0471.