

# Jan Ot Piña Urgell

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## WORK EXPERIENCE

### PHD CANDIDATE

April 2024 - Currently

DELFT TECHNICAL UNIVERSITY, Delft, Netherlands

Research at the Intelligent Energy Power Grid Group under the supervision of Milos Cvetkovic and in col-laboration with CRESYM. Working on cross-sector coupling of models and smart-linking.

### TRAINEE IN MARKET SURVEILLANCE

March 2023 - March 2024

EU Agency for the Cooperation of Energy Regulators (ACER), Ljubljana, Slovenia

Traineeship in the Market Surveillance and Conduct team in charge of addressing REMIT violations, Developing methodologies and programs for the detection of outliers in Energy and LNG markets using public data. Coordination on the Market Correction Mechanism procedures.

### WEB PROGRAMMER

August 2021 - October 2024

IEC (Institut d'Estudis Catalans), Barcelona, Spain

Creation of a database on Mathematics books written in Catalan, developing a search engine and a WordPress plugin for the website: *matematiquesencatala.iec.cat*

### INTERNSHIP

June 2021 - December 2021

Centre de Recerca Matematica, Cerdanyola del Vallès, Spain

Report drafting, Programming, and helping in the daily tasks at the Knowledge and Technology Transfer Unit in the research center. Supporting role in the unit's projects on Cybersecurity and Transportation. Also started an Intellectual Property Awareness program.

### PROCEDURES AND MANAGEMENT

February 2019 - July 2024

Integrated Environmental and Energy Solutions

Carrying procedures for the notification and solicitudes of perforation before the Catalan Water Authorities (Agència Catalana de l'aigüa, ACA). Elaboration of environmental studies.

## EDUCATION

**MASTER IN ENGINEERING AND COMPUTATIONAL MATHEMATICS (ONLINE)** 2024-Currently  
**Universitat Rovira Virgili, Spain.**

Mathematical Engineering and Management Science, interdisciplinary training in current topics in computing and mathematical engineering: computer modeling and simulation, numerical methods and mathematical modeling, artificial intelligence, applied optimization and Big Data.

**POSTGRADUATE COURSE IN DATA SCIENCE FOR MOBILITY AND LOGISTICS** 2024  
**Universitat Politecnica de Barcelona, Spain.**

15 ECTS Postgraduate course focused on the data science skills needed to support sustainable mobility, smart cities and innovations like car-sharing and Mobility as a Service (MaaS).

**MASTER IN ADVANCED MATHEMATICS** 2022-2023  
**Universitat de Barcelona, Spain.**

Studies mainly oriented to research and mathematical innovation, with a rigorous exposure to mathematical topics such as Topological Data Analysis and Optimization. Development of skills to use computational and mathematical methods oriented to multidisciplinary environments. Courses in English

**Final Master's Thesis: Accessible Higher Modalities**

**DEGREE IN MATHEMATICS** 2018-2022  
**Universitat Autònoma de Barcelona, Spain**

Mathematics degree with a strong foundation in both pure mathematics and applied methods. With an Erasmus stay in Aberdeen University in Scotland in my fourth year.

**Final Bachelor Thesis: The Brown Representability theorem for cohomologies**

## LANGUAGE SKILLS

Spanish: **Native**

Catalan: **Native**

English: **C1, IELTS 7.5**

## DIGITAL SKILLS

Programming (Advanced): C, Python, SQL, and R

Programming (Intermediate): PHP, JavaScript, HTML, LEAN, Julia, Kotlin, AGDA

Ofimatics: Proficient with the Microsoft Office package, PowerBI, and in particular, LaTeX and Excel

## OTHER

### *Publications:*

- Co-authored a divulgation article on Cryptodivise markets, it can be found at [https://scm.iec.cat/wp-content/uploads/2021/12/Noticies-49\\_web.pdf](https://scm.iec.cat/wp-content/uploads/2021/12/Noticies-49_web.pdf) (in Catalan)

### *University participation:*

- *Member for the student's section* at the university's senate. (2018-2020)
- *Member of the Faculty Board* at the Sciences Faculty. (2019-2022)
- *Class delegate* and member of the student council at the Sciences Faculty. (2019-2022)

### *Summer Schools and Courses:*

- *JAE Summer School* (Summer 2021)  
Two weeks courses on topics outside the undergrad mathematics curriculum, organized by ICMAT.
- *XVI Young Researchers Workshop in Geometry, Mechanics, and Control* (December 2021)  
Assisted as a listener.
- *Xena Undergraduate Workshop* (October 2022)  
One week stay at Imperial College London working with the Interactive Proof Assistant LEAN, organized by Kevin Buzzard.
- *Mathematics in Ljubljana Summer School* (Summer 2023)  
One week stay at the Ljubljana's University Faculty of mathematics and physics. With courses in Complex Dynamics and Formalization.
- *Reproducible research software development using Python* (Autumm 2024)  
Workshop offered by CodeRefinery to Cresym members.
- *Introduction to Julia for High-Performance Computing* (Autumm 2024)  
Course at TU Delft university, using the computing resources from Delftblauw clusters.