

Joan Gómez i Tomé

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Languages: English Cambridge FCE B2 | Native Spanish | Native Catalan | French Beginner

EDUCATION

Universitat Politècnica de Catalunya - UPC September 2016 - June 2021

Computer Science Degree, specializing in Computation.

- Software architecture, AI, Databases, Graph theory and Computer vision.
- Technology stack: Java, Python, C++, C, PostgreSQL.

Universitat Oberta de Catalunya - UOC January 2022 - January 2024

Master's Degree in Data Science.

- Data mining, Deep learning, Social Networks and Graph theory, Natural Language Processing, Statistics and Databases.
- Technology stack: Python, R, NoSQL, MongoDB, MySQL.

WORK EXPERIENCE

NEMI Mobility Solutions - Software & Data Engineer September 2021 - Present

NEMI is a SaaS for Demand-Responsive Transport (DRT)

- Proposed and developed a feature using dynamic programming and graph theory to improve latency for reservation requests, which decreased from **50s+** to a **0.3s** average response time.
- Created a new simulation tool to predict the best routes and demand for new transport services. This implied terrain characterization, demand generation, data collection and visualization.
- Developed complex features such as a ticketing system and an advanced reservation flow and improved the driver application along with the overall code structure and database architecture.
- Built a new dashboard for clients, added new metrics and made it more visual.
- Boarded and then managed the new junior teammates and worked along the product and design teams to make decisions bringing to the table a more technical view.
- Technology stack: Java, Python, Spring, Thymeleaf, Flask, PostgreSQL, Kubernetes, Vue.js.

PildoLabs - Software Engineer September 2021 - December 2021

PildoLabs is a company involved in Aerospace systems.

- Proposed and refactored an old software of a custom geopositioning tool to a new application built entirely with Python having to solve problems such as interferences, position receivers and internet connection losses. This decision helped massively the maintenance and improvement of the application later on.
- Technology stack: Java, Python, PostgreSQL.

UPCnet - Software Engineer Intern January 2020 - June 2021

UPCnet built internal management applications for UPC

- Built a new management application tool for students and professors internal procedures.
- Technology stack: Java, Vue.js, PostgreSQL.

PROJECTS

The Gymer Game - <https://joang10.itch.io/the-gymer-game> September 2019 - January 2020

Built a 2D Zelda-like video game about my friend group and more about my life with Unity and drawing all the art by myself.

Team Maker - <https://joang10.github.io/teammaker/> July 2021 - August 2021

We had issues building equal teams on our friendly custom matches. I decided to build a frontend application that computes two weight-equal teams that we then used for every game we played.