



# Juan José López Gómez

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Address: Salamanca, Spain (Work)

#### WORK EXPERIENCE

15/10/2021 - CURRENT Salamanca, Spain

# FULL-STACK SOFTWARE DEVELOPER BISITE RESEARCH GROUP

During my professional career I have had a lot of responsibility for structuring, managing and advising on the development of projects, which have served to improve my analytical skills, decision making and programming knowledge.

I have used many technologies but I have used **NodeJs** and **Python** for the backend development more specific for making **REST APIs** with ExpressJs, Flask and Django.

I also have a lot of experience in **web scrapping** for process automation with Selenium and http request libraries such as Request or BeautifulSoup.

I have experience with database managing with Relational (PostgreSQL, MySQL) and NonRelational (MongoDB, Redis).

Some experience with realtime connections with websockets and using cloud services from AWS such as S3, Cloudfront, SQS.

In addition, I have knowledge about CI/CD usign docker and git actions to manage the applications

In the frontend side I have used VueJs and Angular for making some projects.

**Business or Sector** Information and communication | **Department** Web Application Development |

Website <a href="https://bisite.usal.es/es">https://bisite.usal.es/es</a>

## EDUCATION AND TRAINING

01/10/2023 - 12/06/2024 Salamanca, Spain

**INTELLIGENT SYSTEMS MASTER** Salamanca's University

The main subject of the project is the research about if it is feasible using this types of technologies(LLM or Language Large Models) as a tool in the learning process of any subject in specific.

First of all, a SLR (Systematic Literature Review) has been made and some of the findings that has been made is that the LLM can be used for this purpose but supervised by a human, they can't act alone.

Afterwards, it was followed with the research on some of the opensource LLM that some companies has developed, because one of the principles is make this project free and useful for teachers and students. So Llama2 and Mistral were selected in order to be compared against ChatGPT in some of their versions.

One of the objectives is finetune into a specific subject, with the entire process of developing the dataset and retraining the models. When this process has finished, some questions about the subject were asked to each model developed and with the analysis of the answers the result of the research is the following:

For most people using the private models such as ChatGPT is enough and above all because the envioronment that OpenAI has developed and all of the funcionalities that their models have outranked any custom or "handmade" LLM that a ordinary person could develop.

Website https://mastersi.usal.es/ | Field of study Engineering, manufacturing and construction | Final grade 8.42 |

National classification 8 | Type of credits ECTS | Number of credits 15 | Thesis LLM Finetuning to make a learning chatbot

09/2019 - 19/07/2023 Salamanca, Spain

## **COMPUTER SCIENCE DEGREE** Salamanca's University

The Final Degree project consists of the development of a useful and complete Web Application that allows the user to create REST APIs from predefined templates with the option of being customized by the user allowing him to streamline new projects based on architectures of micro services to avoid the exhaustion that could occur when performing monotonous tasks especially in the professional field

- Software engineering complete documentation development
- Complete system development
- · New technologies used

Website <a href="https://usal.es/">https://usal.es/</a> | Field of study Software and applications development and analysis | Final grade 8.0 |

Thesis Web Application for automate APIs Development

09/2017 - 05/2019 Salamanca, Spain

HIGH SCHOOL I.E.S Mateo Hernández

Website <a href="http://iesmateohernandez.centros.educa.jcyl.es/sitio/">http://iesmateohernandez.centros.educa.jcyl.es/sitio/</a> | Field of study Engineering, manufacturing and construction |

Final grade 8,5

#### LANGUAGE SKILLS

Mother tongue(s): **SPANISH** 

Other language(s):

|         | UNDERSTANDING |         | SPEAKING                             |    | WRITING |
|---------|---------------|---------|--------------------------------------|----|---------|
|         | Listening     | Reading | Spoken production Spoken interaction |    |         |
| ENGLISH | B2            | B2      | B2                                   | B2 | B2      |

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

Python, Javascript, Node.js, php, jquery, | FRONTEND: Angular js | Python Language - Basic knowledge | Git | JavaScript | Postman | MySQL | JSON

### DRIVING LICENCE

**Driving Licence: B1**