Victor Capriles

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WORK EXPERIENCE

Timestamp España

Al Software Developer Oct 2024 - Present

- Developing RAG and GraphRAG applications with LlamaIndex, LangChain and LangGraph for agent and multi-agent systems using Python.
- Increased embedding retrieval percentage from 40% to 60% by conducting evaluations of retrieval similarity using diverse metric dot product, cosine similarity, Euclidean distance and embedding model optimization.
- Built deep neural networks and fine-tuned pretrained deep learning models using PyTorch, Transformers and FastAI frameworks.
- Containerized and deployed applications on AWS using Docker.
- Spearheaded the documentation for ai frameworks and core concepts to guide and onboard new hires.

IDNEO

Software & Hardware Quality Engineer Trainee. - Internship

Jan 2024 - Oct 2024

- Developed POC of a Retrieval-Augmented Generation (RAG) application using Python to enhance reliability of the LLM Meta-Llama-3.1-8B, enabling improved retrieval and generation of documentation tailored to the QA department's needs.
- Deployed RAG application using chainlit's framework and added features such as, user session, chat persistence and memory context using Python.
- Generated a monthly interactive Power BI dashboard for analyzing approved and failed milestones, tracking open and closed QA findings, and monitoring ticket closures in Jira using JSQL.
- Automated the monthly KPI reporting process through advanced formula scripting and leveraging Google sheets Jira add-on, resulting in decreased report generation time.
- Supervised software release processes across multiple projects in the healthcare and automotive industries, ensuring compliance with ISO 13485, Automotive SPICE, ISO 9001 or IATF 16949 standards.

HP Inc.

3D Printing Part Quality Engineer. - Internship

Dec 2022 - Dec 2023

- Developed POC of an Image Classifier able to distinguish the part quality defect "Excess Energy" in 3D printed parts for the MultiJet Fusion 5200, using Deep Learning to train in Edge Impulse the model and the transfer learning tool to use the pre-trained CNN MobileNetV2.
- Allocated the images with a ratio of 80:20 for training and validation. Performed decision making regarding fine-tuning of hyper-parameters (Epochs, Learning Rate) and Confusion Matrix evaluation.
- Deployed the trained model into a Raspberry Pi and performed inference with an accuracy of 88.8%.
- Generated a monthly report for stakeholders, with key metrics on printer usage from installed printers using DBeaver and SQL.

EDUCATION

Universidad de Barcelona & Universidad Oberta de Cataluña

MSc. Bioinformatics & Biostatistics

Sep 2024 - Jun 2026

Relevant course work: Python | Machine Learning | Programming for Data Analysis | Statistical Inference | Regression,
Models and Methods | Omics Data Analysis.

Universidad Internacional de Cataluña

BSc. Bioengineering

Sep 2019 - Jun 2024

 Relevant course work: Python | Statistics & Biostatistics | Machine Learning | Deep Learning | Fundamentals of Electric Systems | Signal and Systems Theory.

PROJECTS

• Check out my Blog for further details: notion.so/Victor-Capriles

SKILLS

- Soft Skills: Understand customer requirements, Self-learner and Team worker.
- Programming: Python, R, SQL, SQLite, JavaScript.
- Frameworks: FastAI, PyTorch, Hugging Face Transformers, Matplotlib, NumPy, Pandas.
- Software Tools: Rstudio, PowerBi, Google Colab, DBeaver, Jira, Docker, Git, Doors, Aras.
- Languages: Spanish & English (Fluent).