David Pérez Román

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Software developer with a Master's in Artificial Intelligence Research and a Mechatronics Engineering background. Skilled in Python, PyTorch, TensorFlow and scikit-learn, with expertise in NLP (Stacy and Stanza libraries, BERT models), deep learning, and robotic systems. Extensive expertise in RPA development, database integration, and agile workflows to optimize processes at B/S/H, while contributing to scalable tools and libraries.

PROFESSIONAL EXPERIENCE

PARIVER (B/S/H)   **Zaragoza, Spain**
Software Developer (Python RPA Solutions)   *April 2022–Now*

- **Automated Approval System**: Developed an internal workflow automation tool using SQL Server for data management and PowerPlatform to send approval requests via Outlook/Teams. Created a Python package to streamline project integrations, reducing manual intervention by 30% and accelerating deployment for team use.
- **AI Image Classification Project**: Leading the design of a scalable solution to classify 100+ product classes across brands. Proposed a hierarchical architecture combining object detection (YOLO) with brand-specific CNNs, reducing training costs through dataset optimization and class grouping. Currently curating datasets using label-studio and prototyping models.
- Engineered Python-based RPA systems using SAP Scripting, VBA, and SQL Server, reducing manual workflows by 60%.
- Designed Qt5 GUIs and maintained version-controlled Python utility packages for team efficiency.

HMY Yudigar   **Cariñena, Spain**
Product Engineer   *February 2021–April 2022*

- Optimized industrial furniture designs using SolidEdge/TopSolid, cutting production costs by 15%.
- Streamlined ERP workflows for manufacturing routes and material planning.

Universidad Internacional Menéndez Pelayo (UIMP) – AEPIA   **Zaragoza, Spain**
Master's Degree in Artificial Intelligence Research   *July 2024*
Thesis: Study of Decomposition Methods for Ordinal Quantification.

Escuela Universitaria Politécnica de La Almunia (EUPLA) – University of   **Zaragoza, Spain**
Zaragoza   *July 2021*
Mechatronics Engineering Degree

TECHNICAL SKILLS

- **AI/ML:** Python (PyTorch, TensorFlow, HuggingFace, scikit-learn), NLP (Sentiment Analysis, Dependency Parsing), Supervised/Unsupervised Learning, Deep Learning (Transformers, LSTM).
- **Data & Tools:** SQL Server, PySpark, Git, Docker, LaTeX, Unix systems.
- **Robotics:** ROS, AGV programming, Arduino/C++.
- **Design:** AutoCAD, Inventor, SolidEdge, TopSolid, KiCAD.