Pablo **González**

COMPUTER ENGINEER · PYTHON ENGINEER

Salamanca, Castilla y León, Spain

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Summary

Hey there! I'm **Pablo González**, dedicated to **enhancing backend systems** with **Python**. My expertise lies in **OOP, system architecture, and API-First development**, driving projects to success from inception to deployment. My experience includes the **design, implementation and deployment of web applications and microservices, database management, and server administration**. I am deeply invested in **improving software quality and efficiency**, always seeking to learn and uplift those around me.

Education

USAL(University of Salamanca)   *Salamanca, Spain*

B.S. IN COMPUTER ENGINEERING   *Sep. 2018 - Jul. 2022*

- **Secured a perfect score and Honours** in my Final Degree Project, developing a **Prometheus-like system for server monitoring**, serving multiple devices across diverse networks.

Skills

Back-end	FastAPI, Django, SQLAlchemy
DevOps	Docker, AWS, GitHub Actions
Front-end	Hugo, Next.JS, React, HTML5, CSS
Programming	Python
Languages	Spanish (Native), English (High)

Work Experience

uXcale (Software Services)

PYTHON ENGINEER - SANTANDER BANK   *Nov. 2023 - Present*

- **Participated in the design and implementation of APIs** in Python with FastAPI, developing an **IaaS cloud service model related to Kubernetes**.
- **Contributed to the integration of microservices**, facilitating smoother internal service interactions.
- **Designed and implemented generic CRUD for unknown data structures** in Python with PostgreSQL
- Collaborated on the development and testing of **Github Actions and Workflows** for the verification and validation of data values prior to the creation of a Kubernetes Namespace, as part of an Scaffolding action.
- Applied **Scrum methodologies** to manage project timelines and deliverables efficiently, utilizing **Jira** for project tracking.

PYTHON TECHNICAL LEAD ENGINEER   *Nov. 2023 - Present*

- **Created a Python microservice archetype** with FastAPI and SQLAlchemy, **cutting development time by up to 76 hours** and establishing high standards of code quality. ○ GitHub Link
- **Coordinated internal projects in Python**, working closely with managers of each area, achieving **smooth development cycles** across teams.
- **Mentoring and teaching of colleagues** in diverse fields: version control, quality of code, database design and agile methodology best practices among others.
- **Reviewed and merged Pull Requests, managed project enhancements, and organized workflows** via GitHub, maintaining a **high level of project clarity**.
- **Launched a Python backend development learning roadmap**, demonstrating a **commitment to continuous learning** and skill enhancement. ○ GitHub Link
- **Collaborated on the design of corporate methodologies** for collaboration, organization and development cycles.

PYTHON ENGINEER - QUANT AI LAB.   *Dec. 2022 - Nov. 2023*

- Integrated **FastAPI with internal AI libraries** for user-friendly functionality and seamless interaction; implemented security measures such as **OAuth** and integrated **MongoDB** with a generic CRUD manager.
- Revamped existing AI application, utilizing **FastAPI and MongoDB** for backend and **React with NextJS** for frontend; **significantly improved workflow, streamlined hiring process, and enhanced efficiency for numerous employees**.
- Executed successful data transformation initiatives, **migrating data from legacy Access - SQL Server to MongoDB**; crucial step in modernizing data infrastructure and ensuring compatibility with evolving technological needs.

Python Engineer - Internal Development
Dec. 2022 - Nov. 2023

- **Led the API-First development** of a three-microservice ecosystem on **AWS**, shaping our workstation reservation system. Collaborating with the API design team, I crafted a secure and scalable architecture using FastAPI, Pydantic, and PostgreSQL. Our deployment process was optimized with advanced **Dockerfiles and Docker-Compose**, ensuring efficiency and reliability. Prioritizing fast and efficient communication between microservices, async **HTTPX** request were implemented.
- **Developed a modular Insomnia configuration tool actively employed by the API design team**. By introducing classes and **Jinja templates**, we enhanced the tool's maintainability and usability.

Panelais Producciones S.A. (Metallurgy)

Python Engineer & SysAdmin - Full Time
Mar. 2022 - Dec. 2022

- **Developed the company internal web application using Django, integrated with multiple Microsoft SQL Server databases for real-time data visualization of machines and continuous production lines** and management of internal company processes and offers.
- Administered Linux servers to: maintain **data extraction services via IoT messaging (MQTT)**, deploy multiple web pages, and **monitor databases through Python scripting**, ensuring seamless system operation.
- Conducted in-depth analysis and optimization of complex SQL queries across multiple databases, enhancing data retrieval efficiency and system performance.

Sidisel Electrónica S.L. (Software Services)

Python Developer - Internship Contract
Jan. 2022 - Feb. 2022

- Used GitLab for version control and incident management.
- Employed Docker for microservice deployment and management.
- Conducted functional testing of servers' API using Pytest and Tox.
- Integrated Django with services like Wagtail for enhanced functionality.
- Collaborated on Python client interactions with microservices.
- Developed Python/Django-based microservices for transaction and basic information management.

Ecoinnotec S.L. (Retail Services)

SysAdmin - Internship Contract
Jul. 2021 - Sep. 2021

- Designed and implemented a RESTful API monitoring solution for Windows and Linux using Python and Flask.
- Developed scripts for deploying Odoo ERP servers.
- Provided IT Helpdesk support, addressing a wide range of technical issues.
- Conducted PC setup and configuration for new employees.
- Performed general IT troubleshooting tasks.

Projects

FastAPI Production-Ready Archetype
 GitHub Link

Dec. 2023 - Present

- Developed by my own a template that follows **Domain Driven Design**, includes **SQLAlchemy Models with a generic CRUD**, example endpoints, a complete and strict list of **pre-commit hooks** (such as Ruff, Bandit and Pylint), and functional .env, **Dockerfile and Docker-Compose** configurations, among other things. It serves as a solid foundation for all Python microservice projects, promoting consistency and high standards of code quality, while **reducing development time by up to 76 hours**.

Monitor
Salamanca, Spain

Final Degree Project - University of Salamanca
Jun. 2021 - Jul. 2022

- A **FastAPI** based agent capable of command execution, deployed on hosts that require monitoring.
- The agent sends requests to a **Django/Django REST Framework** web app that manages data and presents it.
- The web app is deployed with **Nginx** and **Uvicorn** for the Web Server, **Redis** for the background tasks and **PostgreSQL** for the database.
- Deployment of the web app is done with **Docker**.
- **Final Grade: 10 with Honours.**

Certificates

May. 2024 **Scrum Master Professional Certified**, EIGP - Escuela Internacional de Gestión de Proyectos *EIGP-401741362*

Aug. 2023 **Confluent Kafka Fundamentals Accreditation**, Confluent *79028533*

Honors & Awards

Dec. 2020 **Semifinalist**, II National CyberLeague *Online*

Nov. 2019 **17th Finalist**, I National Cyberleague *Madrid, Spain*

Sep. 2019 **Participant**, 1st Regional Cybersecurity Forum *Salamanca, Spain*

Oct. 2018 **1st Classified**, I National Cyberleague at USAL *Salamanca, Spain*

Writing

Personal Technical Blog

www.pablogonzalez.me

Founder & Writer

Oct. 2019 - Present

RFID tag with encoded personal information for forensic use, located under a dental filling, a crown or on a dental prosthesis

Co-Author

Oct. 2020

- 📰 Paper in PDF