Jaime Salazar Lahera

Senior Backend Programmer with **5+ years of experience** implementing backends and automating a variety of business needs. Focused on **programming best practices and process improvement**, providing skills crafted in an international context.

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Professional Experience

Senior Backend Programmer Responsible for 4 people

January 2023 - Present

Alten Spain *Madrid, Spain*

Development of **Dockerized Azure Functions (Python)** for the client (a regional government) integrated with **Artificial Intelligence on Azure** for the processing of subsidies

- Took on the leadership role after our Team Lead left on parental leave
- Implementation of the process from the incoming request to the storage of data and documents
- Classification of and data extraction from documents using **Azure Document Intelligence**, **Azure Custom Vision**, **Azure OpenAI** (multimodal models)
- Ample use of **Pydantic** for data validation, overriding its internals for custom, advanced behavior
- Combination of HTTP- and Queue-triggered functions for our complete workflow using **Azure Storage Queues**
- Retrieval of secrets from **Azure Key Vault**
- Document storage in **Azure Blob Storage**
- Results storage in **Azure CosmosDB**
- Chatbot to help the user understand the results via RAG based on **Azure AI Foundry**, **Azure AI Search**, and **Langchain**
- Testing with **pytest**
- Eventual migration of the monolithic code into multiple **microservices**
  - Libraries, implemented in **Docker** with **uv**, originally hosted in **Azure Artifacts** moved to **AWS CodeArtifact**
  - CI/CD moved from **Azure DevOps** to **Bitbucket**
  - Infrastructure via **Terraform** and checked with **Lacework**

Backend development for the client (Immfly, an entertainment platform provider for airlines)

- Feature additions and improvements, bug fixes, code cleanup and standarization for their **Django** app
  - Eg. implemented a quality control process that receives customer comments, attempts automatic diagnostics and repair of the database, and reports back (email, Mattermost)
- Storage and retrieval of **multimedia** content (videos, images, audio) from **Amazon AWS S3**
- Extensive use of **pydantic** validators when accepting csv and xlsx files from external companies
- Migration of unittests to **pytest** and improvements in their testing strategy
- Heavy use of **celery** tasks (including base tasks to standardize behavior) and some cronjobs
- Creation of endpoints in **Django Rest Framework** to return content metadata
- Downloading files from an external **SFTP** and upload to the client's platform
- Use of **gitlab pipelines** to run scripts in the cloud environments (ie. the airplanes)
- Execution in **kubernetes** pods (via kubectl as well as the web UI)
- Development, testing, and debugging inside **DevContainer** for their multi-stage Dockerfile and Docker Compose setup
- Handling of Jira tickets and generation of documentation in Confluence

Backend development and **CI/CD for the frontend** for the client's (Holaluz, a Spanish solar

installer) website and Android and iOS apps

> **ExpressJS (NodeJS)** server with **Typescript** deployed to AWS
> **CI/CD** pipelines integrating GitHub Actions and Codemagic.io to deploy the **Ionic Vue** apps to the Google and Apple Stores

Business process automation for the client, Holaluz

> Maintained and extended **UiPath** bots
> Pioneered the use of **Robocorp (Python)** in the client
>> Setting up AWS EC2 instances as workers
>> Management of Robocorp's Control Room (ie. Orchestrator)
>> Migration of UiPath bots
> **Web automation** (Playwright)
>> Signing in with **digital certificates** (RedTrust)
>> Interactions with forms and download/upload of files, interfacing with government websites and client's CRM and file-sharing platform (Zoho)
> Desktop automation: interaction with Java-based apps for digital certificates (AutoFirma) and PDF viewers that did not respond well to browser actions
> Email and Slack automation for **reports and alerts**
> CI/CD: **GitHub Actions** pipeline including testing and deployment to Robocorp's Control Room
> Some Terraform and IaC experience to expand EC2 disk space or repository owners
> Setting up an Automations CoE in the client from the ground up, as well as a Governance Service
>> Development of **internal libraries**
>>> General utilities library for use in various projects: a template for web automations, interactions with Excel, Google Sheets, Google Drive, the OS filesystem, etc.
>>> Library to interact with Zoho, ie. the client's CRM, file-sharing drive, and analytics module, via the web browser
>> Development of **internal tools and templates**
>>> A template to standardize the Producer-Consumer dynamic (similar to UiPath's REFramework) as well as many QoL improvements (eg. automatic field validation, error reporting)
>>> A tool to update an existing project to the newest version of the template via **PowerShell** scripts
>>> A tool to simultaneously update multiple project's dependencies via Turbolift (similar to UiPath's Mass Dependency Update tool)
> Bringing together and mentoring the members of various departments in the client, and tutoring of junior consultants
> Development of an automated "checklist" to help govern and control infrastructure and automations across the company (eg. Python and powershell scripts to clean up storage space in the EC2)

RPA Programmer Analyst
John Bean Technologies *Madrid, Spain*

January 2021 - January 2023

Business process automation and **data delivery** for the financial departments of the ESSC and NASSC with **Python**, **Blue Prism**, **Power Automate**/Apps, Tableau, Office Scripts, Azure (Functions, DevOps, SQL)

API-based automation within the Office suite with **Microsoft Graph API**

Web automation: selenium for document upload/download to and from ERPs, online forms, and dashboards

Email automation: send/receive emails with attachments, images

Data processing and delivery with Tableau: SQL DBs, Excel for KPI reports and dashboards, Tableau API

Excel automation: Python (pandas, openpyxl, xlwings) and Office Scripts for massive file uploads

(eg. CSV)

Deployment and maintenance of bots on in-house VMs or Power Platform environments

App creation (forms, DB storage) with Power Apps

Project management and documentation with Jira and Confluence

Regular meetings with the various department heads in North America and Europe in a business analyst capacity (requirements gathering and project delivery)

RPA Developer
EDP Spain *Madrid, Spain*

November 2019 - December 2020

Back office automation with **UiPath** and **Python**

Document batch generation: Excel, PDF

Web data scraping and entry: selenium, scrapy, beautiful soup, and requests

Desktop automation: pyautogui

Backoffice Technician
Solar Solution, LLC *Washington, DC, USA*

June 2013 - June 2015

Self-motivated initiative to automate existing workflows in the office

Automation of **document generation** with JavaScript, VBA: customer proposals, interconnection agreements

Pipeline management with VBA: a simple tool to help keep track of each customer's progress

Academic Experience

Master´s Degree in Electromechanical Engineering
Polytechnic University of Madrid (UPM) *Madrid, Spain*

September 2016 - February 2019

Master's Thesis - Autonomous Agricultural Robot

Prototyping with Arduino (I2C, MQTT, PID control) and Raspberry Pi with Flask and MongoDB

PLC programming (Siemens STEP7 and WinCC)

NI LabView graphical programming

Robot kinematics with MATLAB

Electrical and mechanical simulation with Festo FluidSIM, QUCS, and SAM

Undegraduate Courses

January 2014 - June 2016

Polytechnic University of Madrid / Montgomery College *Madrid, Spain / Maryland, USA*

  Electronics, Automation, Circuit Theory, Thermodynamics, Fluid Mechanics

  Differential Equations, Physics III

Bachelor´s Degree in Environmental Science
University of Maryland, College Park *Maryland, USA*

September 2011 - December 2013

  Graduated _cum laude_

  Minor in Ecological Technology Design and Geographic Information Systems (GIS)

Associates´s Degree in Environmental Science and Policy
Montgomery College *Maryland, USA*

January 2010 - May 2011

  2 year degree as a midpoint towards the Bacherlor's Degree

Bachelor´s Degree in Forestry Engineering
Polytechnic University of Madrid *Madrid, Spain*

October 2007 - June 2009

  First 2 years of the degree before transferring to USA

Skills

Programming languages and software

- **Python**: **Django**, FastAPI, playwright, Robocorp, etc.
- **Docker**, CI/CD, IaC (Azure, AWS)
- **TypeScript/JavaScript**, MS Office Scripts

Native-level English

Native-level English due to an academic career and professional experience abroad

Projects

CV

This site was developed with Tanstack, Vite, and `React`. It converts markdown files to html and uses `pdfMake` to create the downloadable PDF version of this site.

Django

Dockerized Django app leveraging `django-ninja` and HTMX for a crypto trading bot. A DevContainer sets up via `docker compose` a few services such as:

- Auth with `django-allauth`, including Google OAuth
- Background workers with `django-tasks` (migrated from Celery)
- PostgresSQL for storing its configuration and orders placed
- Chat via websockets (`django-channels`) with Groq and Ollama

Dependency management with `uv` and CI/CD with GitHub Actions and `pytest`.