

Luis Fernando Barrera

Python Data/Web Backend Programmer

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Spanish · English · Portuguese · German

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About

I am an experienced Python Programmer specialized in designing and programming in backend usually with Django/Flask. I have experience in Web Apps and some expertise designing its frontend, as well as designing CMS, ERP, CRM, B2B, B2C, e-Commerce, Finance and Accounting Apps. I enjoy and have experience extracting, transforming, and refining big datasets (ETL).

Jobs

Credijusto

Small Business Lending Fintech

Python Developer

<https://credijusto.com>

2020-02-24 - current

Location: Remote and Mexico City

Python/Django programmer working in the Financial Core (Fincore) team.

- Maintained and developed Loany, a Portfolio Management System that handles Loans and Leases' transactions and calculations. Using Django and React
- Refactored the Theoretical Table calculations to handle grace periods
- Maintaining Core Financial Libraries to handle calculations and settings across the company
- Designed and developed Kardex, a financial transaction database that allows to get reports gathering quantitative and qualitative data. (More details on the projects section in this CV)
- Audited all the Loan contracts to arrive to correct calculations and logic based on each subproduct (revolving and simple credit)
- Developed strong financial math and accounting skills to help Tech team to understand the financial team needs and provide solutions to major company problems

Cial Dun&Bradstreet México

Latin America's leading business data and analytics provider

Python Data Warehouse Developer

<https://cialdnb.com>

2018-10-01 - 2020-01-15

Location: Remote and Mexico City

Python Programmer working with Kubernetes managing clusters and designing APIs to control and integrate Cial's Data Collection workflow

- Designed APIs to glue stats, status and control of the tasks in the kubernetes cluster using python, FastAPI and Airtable as a convenient frontend interface (Hyperkube)
- Installed, Configured and Managed CialDnB's Kubernetes cluster with distributed storage. Configured Docker image to run the scrapers for collection purposes. (Ragnatela project)
- Helped refactoring the in-house designed distributed scrapy-based framework to collect results using redis as a distributed queue with middlewares to send to our data collection pipeline
- Wrote some scrapers using Selenium and Scrapy
- Designed Silk in Django. An API and management system for organizing the sources, schemas and tasks to collect data to feed the business users with Latin American companies' data in Portuguese and Spanish
- Working remotely and asynchronously with a team distributed in Israel, Croatia and Russia

Shopventory

E-commerce Inventory Management

Django developer

<https://shopventory.com/>

2018-06-01 - 2018-09-15

Location: Remote

Python/Django programmer and Javascript/AngularJS programmer. Working on the project temporarily.

AdRoll (Tiempo Development)

Digital Marketing Company

Software Engineer

<https://adroll.com>

2017-05-15 - 2018-01-15

Location: Remote

Python programmer in the Attribution team creating scripts to process big trails of event data in TrailDB.

- Wrote software to process big trails of advertising events and resume them or transform them in different formats for other internal users
- Designing tests.
- Creating APIs in Flask and in Jersey (Java).
- Working from home in Mexico City with teams in San Francisco and Monterrey.
- Contract through Tiempo Development (<https://tiempodev.com/>)

Nextor Telecom

A telecom and telecom related software company.

Lead Software Engineer

<https://nextortelecom.com>

2014-08-10 - 2017-03-15

Location: Mexico City, MX

Lead developer and maintainer of Nextor Telecom's software infrastructure. It's portfolio includes products such as: Vozero, a prepaid VoIP conference service with a self-service user page to collect payments and manage conference calls in real-time; NextorProxy, a Cloud VoIP PBX service among others.

- Developed Experos a micro ERP for managing the company's administration
- Developed Mango Analytics a comprehensive solution for Call Detail Record, managing and processing large volumes of calls and storing and making available for search call recordings
- Developed a method to quickly setup and create webapps with REST, Django and Bootstrap.

informind

An IT and Software Consulting Company

Founder and Developer

<http://informind.com>

2009-09-30 - 2014-05-06

Location: Mexico City, MX

Founder of Informind. Python Developer and Software Team Leader. Administrative consultant, Data Management Consultant.

- Company chiefly focused in Data management (Catalogue design and sanitation, Document schema design) and the installation of ERP systems in order to generate meaningful and useful information to the Finance, Administration and Executive departments.
- We offered to every small and medium sized business, solutions such as Websites, Apps, Servers and Networking consultant.
- Our vision was to offer: our customers, a quality and affordable all-in-one IT solution; our employees, the opportunity to learn and grow by offering tailored solutions that are valuable to our customer.
- Our customers were in the Manufacturing, Accounting, Commercial, Retail, Healthcare and Publishing industries.
- Remote support (telephone and mail) and in-site. Software and Hardware sales. Sales and project planning. Python software development. Software Architect. External Software implementation. Network design and implementation.

Bank of America Merrill Lynch

Global Bank

Unit Testing Engineer

<https://bankofamerica.com.mx>

2013-04-01 - 2013-07-31

Location: Mexico City, MX

Unit tester for money market in-house developed software written in Quartz (Bank of America's Python Development platform).

- Collaboration and teamwork with Indian, Brazilian and American developers.
- Counter-clock project and with adverse situations, objectives met successfully.

Skills

Python Programming *Expert*

| django | pandas | flask | asyncio | fastapi | scrapy | numpy | anaconda | poetry |

Python Web Development *Expert*

| django | flask | SQLAlchemy | Celery | Django-REST | REST API |

Business

| Administration | Accounting | Software for SMB | ERP | CRM | Taxes | electronic invoicing |

Databases *Expert*

| SQL | Data Design | PostgreSQL | Redis | MySQL | sqlite3 | Legacy Databases |

DevOps & Networking *Intermediate*

| Docker | Kubernetes | CircleCI | Networking | AWS | Windows Server | Ubuntu | CentOS |

Frontend & Web

| Javascript | KnockoutJS | VueJS | SASS | HTML | CSS |

Other *Used occasionally*

| Java | PHP | WordPress | Bash | PowerShell |

Tools & Others

| PyCharm | Git | vscode | zsh |

Languages

| Spanish | English | Portuguese | German |
|---------|---------|------------|--------|
|---------|---------|------------|--------|

| | | | |
|---------------|-----------|----------------|-----------|
| <i>Native</i> | <i>C1</i> | <i>C1</i> | <i>A2</i> |
| | The Anglo | Casa do Brasil | ITEM |

Main Projects

Kardex (Loan Accounting System)

Credijusto

A system designed to make calculations on loans

Designer.

sqlalchemy · financial math · accounting

- Problem: Credijusto Loan Management system is a non-transactional system that register balances instead of transactions
- Main goal is to create a data structure that allows getting the different balances for each loan in any point of time aggregating all the transactions up to that day
- Connect to the existing systems, Loan Management System and CRM, to gather existing data and convert it to transactions
- Based on those transactions calculate the regular interest, moratories, penalties, fees and balances in time using different algorithms of calculation depending on rules for products while maintaining accounting consistency, and using debits and credits
- Develop connectors that allow us to fetch information from different sources and convert data to transactions
- Develop an accesible SQLAlchemy Python API to allow easy reporting
- Developed from 2020-08-15

This CV (Personal Project)

Curriculum Vitae Production System

- A system that builds a Github page with my CV, including a PDF.
- Using resume.json format as the basis for storing the CV data
- Using jinja2 as template format
- Using SASS with a stylesheet that formats the template for screen and print media
- Developed from 2018-12-17
- <http://github.com/luisfernandobarrera/resume>

Pergamum (Custom Application)

Letras Libres

Document Management System

Python Developer. Frontend Developer. Deployment and Maintenance.

django · postgresql · apache tika · apache solr · bootstrap

- Search and manage a document database to mine content and cross-reference documents with scrapers to fetch and add new data from news datasources.
- Using Django and Bootstrap to create an Admin View for users
- Using Apache Tika to fetch metadata
- Using Solr as Search Backend
- Deployed on AWS using ECR and CodeShip
- Code available for review
- Developed from 2016-12-01 to 2018-07-01

Experos (ERP)

Nextor Telecom

Custom ERP with Accounting Functionality

Backend Developer. Frontend Engineer. Project Owner and Manager.

- A micro-ERP with Invoicing, Purchases, Accounts Payable and Receivable capabilities to manage the company and automate processes, and eventually to merchandise it.
- Using Django-PostgreSQL, APIs and Knockout for developing mockups and allow frontend engineers to easily integrate it into a previously developed mocked up interface.
- Backend: Django, PostgreSQL, Django REST Framework APIs. M2Crypto, tablib, XML
- Frontend: Knockout.js Django.js. Bootstrap, React, Redux
- Integrations with Mexican Electronic Invoicing, Electronic Accounting and various banks and payment systems
- Developed from 2015-03-01 to 2017-01-15

coringa (Personal Project)

Expense manager

- An API to store Expenses and Income, Budgeting, Cash Flow and Reporting.
- By the moment only with a Backend.
- Exporting and importing from proprietary system YNAB4
- <https://github.com/luisfernandobarrera/coringa>

Education

Economics

Bachelor

UNAM

2010-08-01 - 2013-05-20

Interests

General

| | | | | | | |
|------------------|------------|----------------|----------|-----------------|------------------|---------|
| Finance | Money | Administration | Business | Data Management | Entrepreneurship | Markets |
| Personal Finance | Accounting | Administration | | | | |

Data

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|-------------------|-----------------|----------|-----------|----------------------|---------------|
| Geographical Data | Data collection | Scraping | Pipelines | Designing Catalogues | Visualization |
|-------------------|-----------------|----------|-----------|----------------------|---------------|

Learning

| | | |
|------|---------|-------|
| Dart | Flutter | React |
|------|---------|-------|

Volunteer

El Sommelier Económico

2016-02-01 - current

Member

An organization to foster discussion of current trends and multidisciplinary learning.