

# Luis Fernando Barrera

## Senior Software Engineering Manager

(Financial, Accounting, Business and Python)

### Remote / Mexico City, Mexico

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full CV [cv.pdf \(link\)](#)

## ABOUT

Senior Software Engineering Manager with a strong drive for building software, leading teams, structuring chaos, organizing complexity. I achieve team objectives by fostering discussions to deeply understand problems and tackle them with a practical, hands-on approach, engage in coding and problem-solving alongside the team, focus on collective success and foster a collaborative environment. Experienced in building teams and mentoring people.

Skilled and enthusiastic Python Programmer with a solid background in Finance, Accounting and Business their Data and Applications. Love to design and to analyze data through building applications and libraries. I just don't develop projects, I am proud to craft them.

If your data or project has symbols like '\$¢£€¥%', you would probably like to share a coffee or interview me.

## LAST JOBS

### Banco Covalto — Senior Engineering Manager (Integration and Legacy Services)

2023/11 - 2024/03

Worked as a de facto Engineering Director. Reporting directly to the CTO. Kept the role of Manager and Technical Leader, programming and structuring code when necessary.

### Banco Covalto / Credijusto — Engineering Manager, Data Engineer, Tech Lead

2020/02 - 2023/11

Engineering Manager (Fincore/ESB Squad). Portfolio Migration Leader in all the quantitative data as a consultant and Data Engineer. Python/Django programmer working in the Financial Core (Fincore) team.

### CIAL Dun & Bradstreet — Python Data Engineer

2018/10-2020/01

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

## SKILLS

### Engineering Management

team building · OKRs and KPIs · mentoring · DevOps · agile methodologies · product requirements · software architecture & design · project management

### Python Data Programming

pandas · dataclasses · numPy · SQLAlchemy · advanced SQL · postgresSQL · SQLite3 · NoSQL

### Python Web Development

django · fastAPI · flask · django-REST · tortoiseORM · REST API · GraphQL · javascript · VueJS · React · HTMX · SASS

### Business

administration · accounting · finance · software for SMB · ERP · CRM · taxes · electronic invoicing · electronic signature · financial math

### Tools

docker · kubernetes · bash · linux · excel VBA · CircleCI · SDLC · code quality · clean code · networking · continuous integration

## LANGUAGES

Spanish — Native

English — C1

Portuguese — C1

## EDUCATION

Economics — UNAM (Bachelor)

2010-08 / 2013-05

Check full CV for full detailed job experience:  
<https://cv.luisfernandobarrera.com/cv.pdf>

## PROJECTS

### Treasury API (Backend API)

Treasury API to expose movements to bank customers

Proposed, designed, gathered requirements with potential customers, planned, and led the project for real-time bank account movement queries via REST or Webhook. Designed the project as a first step in an Open Banking initiative for Covalto.

### Firmas / Mifiel (Web application)

Electronic Signature System

A monolith of services to gather documents for signature, integrate with salesforce and other systems and allow the customers and bank workers the signature of documents with a mexican electronic fiscal signature (e.firma). Allows the signature of endosable promissory notes with Mifiel blockchain.

### Pennyworth (Financial Math/Accounting Library)

A full-fledged multipurpose financial and accounting library.

A library with modules to calculate interest, work with cash flows and time value, handle payments, keep accounting, and calculate and solve amortization tables (schedules). A system to generate an Account Statement based on the Contract Structure and applying it to get the correct balance per different scopes such as loan, date, iou, version.

### Kardex (Loan Accounting System)

A system designed to make calculations on loans

Credijusto Loan Management system is a non-transactional system that registers balances instead of transactions. Kardex is a data structure that allows getting the different balances for each loan at 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.

Calculate the regular interest, moratory interest, 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.

### Experos (ERP)

Custom ERP with Accounting Functionality

A micro-ERP with Invoicing, Purchases, Accounts Payable and Receivable capabilities to manage the company and automate processes, and eventually to merchandise it.

## company · role · date · skills

### *Banco Covalto*

**Product Designer · Architect · Manager**

2024/02 to 2024/03

kafka · django · accounting · reconciliation systems · product design · webhooks · customer requirements · auth0 · regulations & compliance

### *Banco Covalto*

**Python Developer. Frontend Developer. Manager.**

2023/04 to 2024/03

fastapi · web development · postgresql · tortoiseORM · mifiel · e.signature · blockchain · aws s3 · google cloud · kubernetes

### *Banco Covalto*

**Designer. Python Developer.**

2022/01 to 2022/12

business data · financial math · accounting · numpy\_financial · dataclasses · pandas · jupyter.

### *Banco Covalto & Credijusto*

**Designer. Python Developer.**

2020/02 to 2022/12

business data · financial math · accounting · financial libraries · dataclasses · pandas · jupyter · sqlite3 · sqlalchemy

### *Nextor Telecom*

**Designer. Python Developer.**

2015/03 to 2017/01

fullstack · accounting · postgresQL · django · django-rest · APIs · xml · electronic invoicing · knockout.js