



Joel Barrón

Full Stack software engineer · Python · Django · DRF · PostgreSQL · Celery · React Native · Expo · AWS

Profile

Senior software engineer with 9+ years of experience designing and delivering backend platforms, APIs, and cross-platform applications for fintech, consumer, education, and public-sector products.

I specialize in Python, Django, and Django REST Framework, with a strong focus on scalable backend architecture, SQL/ORM optimization, asynchronous processing, and production reliability. I have extensive experience building systems that handle real-world workloads, including long-running processes, integrations with external services, and data-intensive operations.

In addition to backend engineering, I have hands-on experience delivering mobile and web applications using React, React Native, and Expo, allowing me to contribute across the full product lifecycle—from architecture and backend systems to user-facing applications.

Areas of Expertise

- Backend systems with Python, Django, Django REST Framework, FastAPI
- API design, integrations, and scalable architectures
- SQL, PostgreSQL, SQL Server, query optimization, indexing
- Asynchronous processing with Celery, background jobs, cron workflows
- Cross-platform mobile apps with React Native and Expo
- Web applications with React, Next.js, Astro
- Cloud infrastructure with AWS (EC2, RDS, S3, SES, Cognito, ALB)
- Docker, CI/CD pipelines, GitHub Actions
- System design, performance optimization, and production reliability

Professional Experience

FULL STACK SOFTWARE ENGINEER

Nexion solutions – Argentina - remote
August 2021 - Present

Client: American Express México

- Designed and maintained backend services using Python, Django, and Django REST Framework for enterprise financial platforms.

Location and contact

Guanajuato, México
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Links

LinkedIn
Website (portfolio)
GitHub

Languages

Spanish - Native
English - B2

Personal projects

Mentalysis.mx:

Mental health pre-diagnosis application based on medical history, substance use, and DSM-5 assessment.

Stack: Python, Django, DRF, PostgreSQL, Elasticsearch, React

Rente.mx:

Marketplace for renting parking spaces by the hour or day, with booking flows and Stripe payments.

Stack: Django, DRF, PostgreSQL, Redis, Celery, React, React Native, Expo, Stripe

Finzenio.app:

Personal finance app with AI-assisted statement processing, transaction tracking, budgeting, and analytics.

Stack: Python, Django, DRF, PostgreSQL, Redis, Celery, React Native, Expo, AWS

- Improved system performance through SQL optimization, indexing strategies, and ORM-level tuning.
- Contributed to the migration of legacy systems toward microservices architecture, improving scalability and maintainability.
- Built resilient APIs and services handling financial data and business-critical workflows.
- Implemented CI/CD pipelines using GitHub Actions, including automated testing, linting, and quality validation with SonarQube.
- Addressed production issues, bugs, and security vulnerabilities across distributed systems.

Technologies:

React (v17), Django (v3.2), Django REST Framework (v3.12), Spring Boot (v2.5), SQL Server (v2017), Git, Celery, GitHub Actions.

Unit testing across frontend and backend, CI/CD pipelines with GitHub Actions, SonarQube validation, automated formatting with Black and ESLint.

Client: American Express Argentina

- Developed a cross-platform mobile application used by 500+ field agents.
- Implemented geolocation tracking, visit logging, image uploads, and real-time activity tagging
- Built offline-first capabilities for low-connectivity environments.
- Reduced operational time by ~40% through optimized flows and dynamic forms.
- Designed backend services supporting synchronization, data processing, and mobile workflows.
- Led full deployment lifecycle to App Store and Google Play.

Technologies:

React Native (v0.70+), Expo (v48), React (v18), TypeScript Mapbox SDK, Zustand, Tanstack Query, Material UI, Vite js, Gluestack UI, Native Base (v3), Nativewind CSS, React Hook Form (v7), AsyncStorage, Geolocation API, websockets, PostgreSQL (v15), Django, Django Rest Framework, Django ORM, Django channels, Celery, Cronjobs, AWS EC2, Route 53, AWS app load balancer, Amplify, RDS, Cognito, Stripe, Git y Git Flow, unit testing with Jest, React Native Testing Library, code linting with ESLint, prettier, static code analysis using SonarQube.

Client: Grupo Boldt

- Bplay: Developed the official Bplay app for the Argentine Football Federation, a sports betting platform covering events such as the Qatar 2022 World Cup, Argentine Superliga, Champions League, and Europa League.
- Hit club: A platform for casino users in Argentina, Uruguay, and Brazil, offering promotions, account management, and code redemption.

Comunicomic:

Interactive comic platform for children, featuring a mascot that feeds on reading and rewards progress.

Stack: Django, DRF, PostgreSQL, Redis, React, React Native, Expo, AWS

Reusable Libraries

[Jb-drf-auth:](#)

Backend foundation for Django REST Framework projects, including authentication flows, base structures, and reusable API patterns

[Jb-expo-dev-kit:](#)

Starter toolkit for React Native + Expo projects with predefined structure, utilities, and reusable components

[Jb-web-dev-kit:](#)

Web development toolkit for React-based applications with standardized configuration and project setup

- Weigo Pay: A vehicle ownership payment app developed in collaboration with McDonald's Argentina, integrating license plate recognition and automatic user authentication.

Technologies:

React Native (v0.65), Expo SDK (v45), React (v16.13), Tailwind CSS (v2), React Hook Form (v6), Django (v3.2), Django REST Framework (v3.12), AWS Lambda, AWS Cognito. Git, unit testing with Pytest and Jest, code linting with ESLint and Flake8.

FULL STACK SOFTWARE ENGINEER

Kaizentec – León Guanajuato, México – On-site

May 2018- July 2021

- **Banco del Bajío:** Participated in the development of solutions for Banco del Bajío, including biometric identification systems, digital document management, and data visualization and analysis tools.
- **ERP Andanenes:** Comprehensive ERP system developed and implemented over 3 years for the footwear company Andanenes, covering modules for purchasing, HR, production, warehousing, scheduling, and invoicing.
- **Mi Rentero:** Office rental management app facilitating access to contracts, invoicing, and payment notifications.

Technologies:

React (v16.8), Django (v2.2), Django REST Framework (v3.10), PostgreSQL (v11), Docker, Docker Compose, AWS S3, AWS SES, Route 53.

Version control with Git, automated testing with Pytest, linting implementation, and adherence to best practices in multidisciplinary teams.

FULL STACK SOFTWARE ENGINEER

Célula de desarrollo tecnológico ACRUX – León Guanajuato, México – On-site

January 2017- April 2018

- Developed a comprehensive government accounting system for the municipality of Tultitlán in compliance with official regulations.
- Implemented modules: procurement, digital records, suppliers, inventory and cost management, budgeting.
- Actively contributed to both backend and frontend development, integration with external services, query optimization, and deployment in production environments.

Technologies:

React (v15.6), Java Spring Boot (v1.5), SQL Server (v2016), DevExpress, Sass, .NET Core (v2.0). Version control with Git, unit testing with JUnit, and code review using linters.

BACKEND DEVELOPER

Café consultores— León Guanajuato, México – On-site

February 2016- December 2016

- Developed web systems using PHP and Laravel, implementing scalable and secure RESTful services.
- Created modern SPAs with React.js and Angular, including dynamic forms, advanced state management, and real-time updates via WebSockets.

Technologies:

PHP (v7.0), Laravel (v5.3), Angular (v2), React (v15), Git, LAMP/LEMP stack.
Version control with Git and Git Flow.

Education

- 🎓 B.S. in Information and Communication Technologies — Tecnológico nacional de México campus León, México (2014 – 2018).
- 🎓 CNNA — Tecnológico nacional de México campus León, México (2018).
- 🎓 SCRUM Fundamentals Certified — Scrum study (2021).
- 🎓 Platzi student — Platzi inc (2015 - Present).