

DIEGO ALBERTO AGUILERA ZAMBRANO

Backend Software Engineer | Kotlin | Python | AI/ML

+57 (310) 669-9142 @ diegoaguilera85@gmail.com https://linkedin.com/in/diegoaguilera Colombia



EXPERIENCE

Software Engineer

There App Co

12/2025 - Present Remote

- Contributed across the stack by extending and maintaining backend services built with Kotlin and Spring MVC, implementing new REST endpoints, refining existing API behavior, and ensuring consistent integration with the platform's architecture.
- Supported a complementary Django microservice using Django REST Framework, adding new features, improving data flows, and maintaining reliable communication between services.
- Developed new AngularJS components, services, and UI logic to expand product functionality and improve user experience.
- Collaborated closely with backend and product teams to deliver cohesive, well-integrated features across both the Kotlin/Spring and Django-based APIs.

AI/ML Backend Engineer

CubitIA.net

02/2025 - 12/2025 Remote

- Designed and developed reactive microservices using Kotlin, Spring Boot, and WebFlux, delivering scalable, non-blocking performance in high-throughput environments. Implemented distributed event-streaming microservices leveraging Apache Kafka. Built reactive Kafka pipelines with backpressure handling, load shedding, and resilience patterns to ensure robust, fault-tolerant data flows. Implemented intelligent image-analysis workflows by integrating a third-party Cloud Vision API provider for real-time text and face detection, and applied OpenCV-based preprocessing techniques to optimize visual data for downstream machine-learning tasks.

Software Engineer II

Cars.com

03/2022 - 02/2025 Remote

- Designed, developed, and continuously improved multiple full-stack applications using Python (Django, Flask) for backend API development and JavaScript/Angular for frontend interfaces.
- Built user and dealership management tools with their corresponding APIs and UI components.
- Architected and implemented integrations with major third-party platforms—including Intercom, Salesforce, Zoho, HubSpot, Vindex, Galves, Trader, and TrueCar—using REST APIs.
- Owned the full integration lifecycle: API design, authentication flows, data modeling, error handling, and performance considerations such as throttling, rate limits, and retry strategies.
- Ensured secure and reliable access by designing permission models, user-role logic, and endpoint-level authorization.
- Developed asynchronous and background processing pipelines using Django Celery, leveraging its distributed task-queue system to offload time-consuming operations and maintain application responsiveness.
- Implemented workers and scheduled tasks for report generation, data synchronization, and long-running external API operations, with robust retry logic and fault-tolerant execution.

SUMMARY

I'm a backend engineer with a growing focus on asynchronous programming, real-time systems, AI-driven workflows. I've built scalable platforms across automotive, marketplace, and machine-learning domains, always prioritizing clean architecture, resilience, and long-term maintainability.

Recently, I've been working with Kotlin + Spring WebFlux, exploring reactive patterns and building event-streaming components with Apache Kafka. I've also integrated cloud-based vision APIs and applied OpenCV preprocessing to support real-time image-analysis workflows.

Before moving into reactive and ML-oriented systems, I spent several years as a full-stack and backend engineer using Python (Django, Flask), JavaScript/Angular, and Celery-based distributed task processing. I've led complex third-party integrations end-to-end across platforms like Salesforce, HubSpot, Intercom, Zoho, and TrueCar.

I enjoy solving hard problems, simplifying complexity, and building systems that stay reliable under pressure. Always open to connecting with teams working on distributed, event-driven, or AI-powered backend systems.

KEY ACHIEVEMENTS



API Performance Enhancement

Reduced API response times by 40% through optimization and restructuring of backend systems.



Dealerships Tool Deployment

Developed dealerships management tool reaching over 500 automotive clients nationwide.



Third Party Services Integrations

Designed and implemented RESTful API integrations with Salesforce, streamlining data exchange between third-party services and our internal systems. Enhanced efficiency by automating workflows and ensuring seamless connectivity.

CERTIFICATIONS

Machine Learning Specialization

Stanford University & DeepLearning.AI - March 2023

EXPERIENCE

Full Stack Engineer

Accu-Trade - Innovative Dealer Tools

📅 08/2017 - 03/2022 📍 Remote

- Worked as a full-stack engineer extending existing REST APIs and designing new backend services to support major product features.
- Built and maintained APIs for user account management, dealership settings management, and other core modules using Django and Flask.
- Implemented integrations with external platforms such as MailChimp, ensuring reliable data exchange, proper authentication, and robust error handling.
- Developed asynchronous workflows and scheduled background tasks using Django Celery, leveraging its distributed task-queue architecture to offload time-consuming operations.
- Implemented Celery workers for email notifications, long-running external API operations, report generation, and image-processing pipelines used in both user management and dealership management features.
- Designed and optimized the database schema and Django models for the settings module, ensuring clean data relationships and scalability.
- Built frontend interfaces for dealership configuration and user account management using JavaScript, AngularJS, and Django class-based views.
- Integrated AngularJS components directly into Django templates and views, enabling dynamic, responsive UI behavior while maintaining compatibility with the server-rendered architecture.
- Delivered cohesive full-stack implementations tightly aligned with the backend APIs and business requirements.

Backend Developer

Skylab Apps

📅 12/2016 - 07/2017 📍 Remote

Full-time Backend/API developer for a gamified platform technology company.

- Developed API module for storing the business metrics
- Developed API for the master control center of the application
- Developed API to handle permissions and access control to multiple levels of admins
- Provided technical expertise and updates in code reviews and application discussions.
- Coordinated with software developers for development of applications.
- Prepared API documentation.
- Followed procedures for measurement and optimization of performance of developed API

Full Stack Web Developer

Boutique Mate

📅 07/2016 - 11/2016 📍 Remote

Full stack Django developer for a booking system, Usually provided of specs/wireframes and technical story lines from the project leader.

- Built REST API using django-rest-framework
- Created Django Models/Views/Forms
- Migrated models from Mongo to Postgres
- Built Frontend components with React-Redux

Backend Developer

ZippyZen, LLC

📅 02/2016 - 08/2016 📍 Remote

BackEnd Django developer responsible for DB design using PostgreSQL and Django ORM and API development with django-rest-framework

- Built API using django-rest-framework
- Built SQL Views and Tables and bind them to Django models

EXPERIENCE

Full Stack Web Developer

LeagueLobster.com

📅 03/2015 - 03/2016 📍 Remote

Full-stack Django developer for a sports league management web app.

Full-time development, actively contributing 40+ hours per week to designing, implementing, and enhancing software features.

I'm usually provided of specs/drawings, discuss desired functionality via Skype and proactively suggest improvements over the discussions.

- Built intuitive admin dashboard
- Created/integrated a settings' app that allowed clients to customize their theme
- Extended stats tracking functionality (e.g. goal scorers, assists, saves etc.)
- Improved code efficiency and speed

Software QA Tester

PikaPay

📅 03/2014 - 08/2014 📍 Remote

- UI & Cross Platform Compatibility Testing (Mobile/Desktop)
- Defect/Bug Tracking for a BitCoin payment project
- Responsible for the QA Department
- Tech Involved: Various Python and JavaScript modules/frameworks
- GitHub for Issue reporting and tracking
- CasperJS for Tests Suites development

Product Manager

EMI Group

📅 02/2011 - 02/2014 📍 Caracas, Venezuela

Design of motion control applications/solutions using LENZE Hardware and Software. Specialist in Dimensioning Commissioning and integration in Automation projects for:

- Frequency inverters
- Servo Drives
- Motors & Gearboxes

Software Engineer

Centro Nacional de Tecnologías de Información

📅 10/2009 - 02/2011 📍 Caracas

Developer of Canaima GNU/Linux, a Venezuelan desktop distribution based on Debian GNU/Linux. Designed as a solution for the computers of National Public Administration in accordance with the presidential decree number 3.390 about the use of free technologies in National Public Administration in the country.

- OS Installer
- System Recovery
- GUI Designs

EDUCATION



Engineer's Degree, Software Engineering

Universidad Nacional Experimental del Táchira

📅 01/2015 - 01/2017



Engineer's Degree, Electronics Engineering

Universidad Nacional Experimental del Táchira

📅 2003 - 2008