

## Profile summary

Backend Developer dedicated to design and implement high quality, user-friendly and feature-rich software products. Proficient in Python, JavaScript and Dart. Passionate about continuous learning and problem-solving. Collaborative and adaptable in fast-paced team environments.

## Work experience

📅 06/2021 - PRESENT 📍 REMOTE

### Backend Engineer

#### Cornershop by Uber

- Maintained and enhanced a large legacy codebase, resolving issues and implementing new features across diverse business domains using **Python, Django, Celery, Redis,** and **PostgreSQL**.
- Developed performance monitoring features for bulk product creation and updating tools, ensuring efficient execution and optimization.
- Led a major refactor spanning multiple business domains, enabling stores to operate across multiple time slots per day, significantly enhancing operational flexibility.
- Streamlined operations by integrating new tools for bulk object creation and updates, resulting in reduced manual engineering efforts and improved efficiency.
- Designed and implemented a comprehensive tool for automated generation, management, and configuration of periodic reports, leveraging diverse data sources such as orders, receipts, and customer data.
- Played a key role in minimizing manual engineering involvement by enhancing the configuration and maintenance processes of the automated reports tool.

- Strengthened the automated reports tool by enhancing test coverage, reliability, and monitoring, ensuring robustness and accuracy in report generation.

📅 01/2021 - 06/2021 📍 REMOTE

### Software Engineer

#### Eva Health

- Proposed and implemented architectural changes to enhance the center software, resulting in reduced downtime caused by internet connectivity issues and communication faults between devices.
- Developed a robust, new version of the center server using **Django** and **Django REST framework (Python)**. This API encompassed multiple services that seamlessly communicated with hardware devices such as smart lights and thermal cameras, as well as a remote server.
- Refactored code segments responsible for interacting with a thermal camera, minimizing downtime due to connectivity issues and faults in proprietary vendor software. Used the **Falkon** framework (*Python*).
- Created a lightweight REST API using the **Crow** framework to integrate a FLIR thermal camera with the **eBUS SDK**, facilitating efficient communication and data exchange. (*C++*)
- Refactored two mobile apps to align with proposed architectural changes effectively using **React Native (TypeScript)**.
- Successfully deployed existing projects to new devices using **Ansible** as an automation tool, streamlining the deployment process and ensuring consistency across environments.

📅 06/2019 - 01/2021 📍 ZACATECAS, MEXICO

### Software Engineer

#### Altest

- Accelerated software development cycles by adopting an API-driven architecture, leveraging modern frameworks like **Vue** (*JavaScript*), and automating deployments using **Ansible**.
- Engineered a web scraper using **Scrapy** (*Python*) to extract and analyze market data from leading online vehicle vendors.
- Built a **REST API** for comprehensive vehicle market analysis, utilizing **Django** and **Django REST framework** (*Python*). Developed a single-page web application with **Vue** and **Quasar** (*JavaScript, HTML, CSS*) to interface with the vehicle market analysis API.
- Constructed a **REST API** for RFID asset management, employing **Django** and **Django REST framework**. Designed and developed a single-page web application using **Vue** and **Quasar** to interface with the RFID asset management API.
- Created a mobile app for Zebra **RFID** readers using **Flutter** (*Dart*) for seamless asset management. Also, developed a native **Flutter** plugin in *Java* and *Dart* to facilitate communication with the Zebra RFID SDK in **Android**.
- Designed and implemented a Java-based desktop application to print RFID tags on Zebra printers and interface with the RFID asset management API.
- Built a desktop application using **PyQt** (*Python*) for annotating anomaly video datasets, facilitating subsequent training of deep learning models.
- Developed a Python package leveraging **Pytorch** and **OpenCv** for face analysis tasks, including face detection, recognition, and age/gender estimation.
- Constructed a scalable **REST API** web platform for real-time face analysis on video cameras, utilizing **Django** and **Django REST framework**. Also, designed and developed a single-page web application with **Vue** and **ElementUi** to interface with the face analysis API.
- Created a Python application for license plate recognition using **TensorFlow** and **OpenCv**, enabling accurate automated recognition.

📅 09/2017 - 02/2018 📍 ZACATECAS, MEXICO

## Software Engineer

### CRD Ingeniería y Consultoría Zacatecas

- Created a native **Android** app using the **DJI Android SDK** (*Java*) for efficient planning of drone flight missions, ensuring precise aerial data collection and analysis.
- Developed a Python package utilizing **OpenCv** (*Python*) for the analysis of aerial images of crop fields, contributing to research efforts during my Master's thesis.
- Designed and developed a desktop application using **PyQt** and OpenDroneMap (*Python*) for generating and analyzing orthomosaics of crop fields, enabling accurate assessment of vegetation health and growth patterns.

📅 10/2013 - 07/2016 📍 SANTA CLARA, CUBA

## Adjunct Professor

### Central University of Las Villas "Marta Abreu"

- Prepared the study materials and taught a Satellite Communications course (64 hours).
- Assisted the taught of a IP Telephony course (32 hours).
- Assisted the taught of a Physics course (64 hours).
- Advised two undergraduate thesis in the telecommunications field.

## Skills

### Programming languages



### Backend

Django Django Rest Framework FastAPI  
SQLAlchemy PostgreSQL Celery Redis

## Frontend & Mobile

Vue HTML CSS Flutter Android  
React Native Nuxt

## Other Skills

Pytorch OpenCv TensorFlow Ansible  
Docker Git Linux Systems

## Research Work

- Bordon, Raikel, et al. "Energy efficient cooperation based on relay switching on-off probability for WSNs." *IEEE Systems Journal* 12.4 (2017).
- Bordón, Raikel, et al. "Energy efficient power allocation schemes for a two-user network-coded cooperative cognitive radio network." *IEEE Transactions on Signal Processing* 64.7 (2015).
- Bordón, Raikel, et al. "Energy-efficient outage-constrained power allocation based on statistical channel knowledge for dual-hop cognitive relay networks." *International Journal of Communication Systems* 30.3 (2017).
- Bordón, Raikel, et al. "La radio cognitiva y su impacto en el uso eficiente del espectro de radio." *Ingeniería Electrónica, Automática y Comunicaciones* 36.1 (2015).
- Bordón, Raikel, et al. "Evaluación de modelos de propagación de canal inalámbrico." *Revista Cubana de Ingeniería* 3.1 (2012).
- Bordón, Raikel, et al. "Genetic algorithm aided transmit power control in cognitive

radio networks." *2014 9th International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM)*. 2014.

## Education

📅 08/2018 - 12/2019 📍 ZACATECAS, MEXICO

### PhD in Engineering and Applied Technology (two semesters)

Autonomous University of Zacatecas "Francisco García Salinas"

📅 08/2016 - 08/2018 📍 ZACATECAS, MEXICO

### Master of Science in Engineering

Autonomous University of Zacatecas "Francisco García Salinas"

📅 09/2013 - 07/2015 📍 SANTA CLARA, CUBA

### Master in Telematics

Central University of Las Villas "Marta Abreu"

📅 09/2007 - 07/2012 📍 SANTA CLARA, CUBA

### Engineer in Telecommunications and Electronics

Central University of Las Villas "Marta Abreu"

## Hobbies



Travel



Movies & TV



Video Games



Workout



Reading



Crafts