#### **Personal Website**

raikel.github.io/portfolio

# **Profile summary**

Creative software developer dedicated to design and implement high quality, user-friendly and feature-rich software products. Passionate about building things by coding and acquire new skills every day. Strong attention to detail, excellent problem solving skills and ability to work in a fast-paced team environment.

# **Work experience**

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## **Software Developer**

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- Improved software development workflows by promoting development methodologies (scrum, kanban), tools (Git, GitHub, Ansible, web frameworks) and team collaboration.
- Reduced the overall software development cycle time to the half by introducing an API driven architecture, the use of modern JavaScript frameworks like Vue and automated deployment tools, like Ansible.
- Developed a **web scraper** to analyze vehicle market data from main online vendors using **Scrapy** (*Python*).
- Developed a REST API web platform for vehicle market analysis from scraped data, using Django and Django REST framework (Python).
- Designed and developed a single page web application to interface the vehicle market API, using Vue and Quasar (JavaScript, HTML, CSS).
- Developed a REST API web platform for RFID asset management, using Django and Django REST framework (Python).
- Designed and developed a single page web application to interface the RFID asset management API, using Vue and Quasar (JavaScript, HTML, CSS).
- Designed and developed a mobile App for the Zebra RFID readers, using Flutter (Dart).
- Developed a native Flutter plugin to interface the Zebra RFID SDK for Android (Java, Dart).
- Designed and implemented a desktop application to print RFID tags on Zebra printers

- with and interface to the RFID asset management API (Java).
- Developed a desktop application for annotating anomaly video datasets, that was used later for the training of deep learning models, using PyQt (Python).
- Developed a Python package for face analysis (face detection, face recognition, age and gender estimation) based on deep learning, using Pytorch and OpenCv (Python).
- Developed an scalable REST API web platform for real-time face analysis on video cameras, using Django and Django REST framework (Python).
- Designed and developed a single page web application to interface the face analysis API, using Vue and ElementUi (JavaScript, HTML, CSS).
- Developed a Python application for license plate recognition based on deep learning, using TensorFlow and OpenCv (Python).
- Deployed multiple projects to **AWS EC2** instances, using **Ansible** as deployment automation tool.
- Configured and managed Linux servers (Ubuntu, CentOS), including security, databases and web servers.

## **Software Engineer**

#### CRD Ingeniería y Consultoría Zacatecas

- Designed and developed a native Android app for planning drone flight missions, using the DJI Android SDK (Java).
- Developed a Python package for the analysis of aerial images of crop fields using OpenCv (Python). This work was also part of my Master's thesis.
- Designed and developed a desktop application for the generation and analysis of crop fields orthomosaics, using PyQt and OpenDroneMap (Python).

## **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**



# Web and mobile development



# **Machine learning**

Pytorch OpenCv TensorFlow

# **UI Design**

Figma Inkscape AdobeXd

#### **Other Skills**

Ansible AWS EC2 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 outageconstrained 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**

## **Master of Science in Engineering**

Autonomous University of Zacatecas "Francisco García Salinas"

• General average of 9.80/10.

#### **Master in Telematics**

Central University of Las Villas "Marta Abreu"

• General average of 9.75/10.

## 09/2007 - 07/2012 ♀ SANTA CLARA, CUBA

# Engineer in Telecommunications and Electronics

Central University of Las Villas "Marta Abreu"

General average of 10/10.

### **Hobbies**







Movies & TV



Video Games



Running



Reading