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# Javier de Martín Gil

iOS developer, Telecommunications Engineer & Machine Learning enthusiast

Bilbao, Spain. Available to relocate after graduation in late June 2020.

javierdemart.in  
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## Work Experience

### iOS Developer @ Bytek Smart Solutions SL

February 2019 / May 2020

iOS app for a developing eHealth Alexa-based platform. Worked in parallel with the hardware team. Developed the iOS app to set up the hardware and configure users. Registered users with Amazon Cognito. Provisioned the device with the WiFi configuration for Alexa using CoreBluetooth. Stored user medication reminders and intakes using Amazon DynamoDB.

Swift, CoreBluetooth, RXSwift, Fastlane, Coordinator Pattern & AWS Cognito

### iOS Developer @ VirtualCare Global Solutions SL

August 2019 / March 2020

Hired as a freelance to develop an always on VPN for iOS devices using Network Extensions. Supports network interface changes and automatically redirects traffic through the tunnelled interface. Managed multiple VPNs on a single device to support multiple VPN profiles.

Swift, MVVM, Coordinator Pattern, Fastlane, Git, RXSwift & Network Extensions

### iOS Developer @ Aholab Research Group of the University of the Basque Country

April / July 2018

Text To Speech for spanish and basque speakers. Adapted proprietary C/C++ library to be compiled for iOS devices. Linked it with Objective-C bridging headers to call the library's functions from Swift code. Designed the app to synthesize phrases and common words.

Swift, AVFoundation & Objective-C Bridging Headers

## Education

### MSc in Telecommunications Engineering @ University of the Basque Country

October 2018 / July 2020

Thesis: "Improving bike sharing predictions using LSTM neural networks with Machine Learning and clustering analysis"

### BSc in Telecommunications Engineering @ University of the Basque Country

Sept 2013 / Sept 2018

Thesis: "Neural network model based model to predict availability of urban bike sharing system"

Relevant coursework: Telecommunication Networks, TCP/IP Protocol Stack, RF, FPGAs, Signal Processing, Cisco IOS routers & Software Development

## Projects

### Neural Bikes `neural.bike`, `code.neural.bike` & `app.neural.bike`

2017 / Today

Live Machine Learning time series predictions of bike sharing availability for different services. Storing data from different Open Data portals on an InfluxDB database to train a LSTM neural network. Performed K-means clustering analysis to identify usage patterns. Daily predictions are created using previous data to be made public from the InfluxDB using CloudKitJS storing the data on the app's public iCloud container.

Python, Keras, NodeJS, CloudKit JS, Time Series Forecasting & InfluxDB

Created an iOS app to consume the generated prediction data for the different available services. Providing users additional insights comparing the predictions and daily historic availability for each station.

Swift, RX Swift, MVVM, Fastlane & Coordinator Pattern

### Bilbao Dynamics `bilbaodynamics.com`

2013 / 2019

Founded a non-profit with freshman friends to teach kids robotics, electronics, 3D printing & programming. Built our own Arduino-based robots with all the necessary components to be able to teach.

## Languages

Spanish Native & English Proficient

## Awards

Bizintek, 2nd place awarded to best BSc thesis