

DEMO

FRANCISCO VILCHEZ

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← → C ⌂ 🔒 ieeexplore.ieee.org/document/7435956

Artificial musical pattern generation with genetic algorithms

Publisher: IEEE [Cite This](#) [PDF](#)

Francisco Vílchez Vargas ; Jose Astuvilca Fuster ; César Beltrán Castañón [All Authors](#)

1 Paper Citation 173 Full Text Views

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Abstract

Document Sections

- I. Introduction
- II. Technical Background
- III. New Technique or Technique Adaptation
- IV. Implementation
- V. Results

Abstract:
This paper describes an implementation for generating artificial musical patterns using genetic algorithms. The proposed algorithm considers the musical theory and the use of smart operators for creating new melodies. We focused on creating jazz music and play it with a rhythmic accompaniment, so that we can get educational uses from it. The results are available in the next link: <https://soundcloud.com/euricide>.

Published in: [2015 Latin America Congress on Computational Intelligence \(LA-CCI\)](#)

Date of Conference: 13-16 Oct. 2015 **INSPEC Accession Number:** 15871101

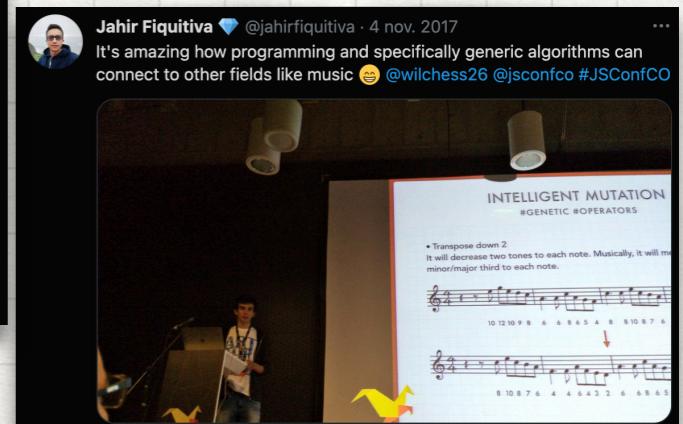
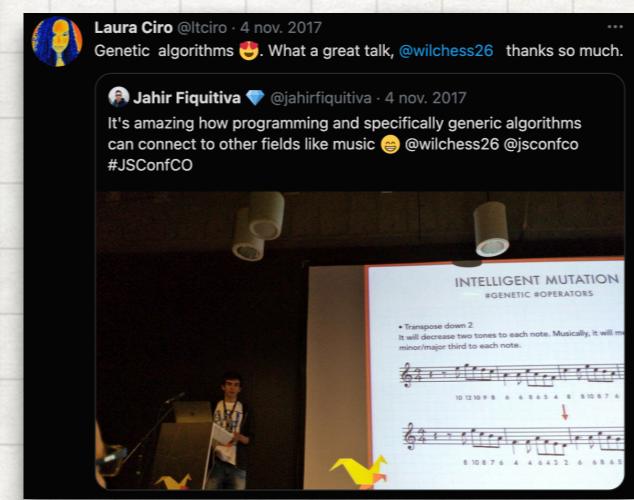
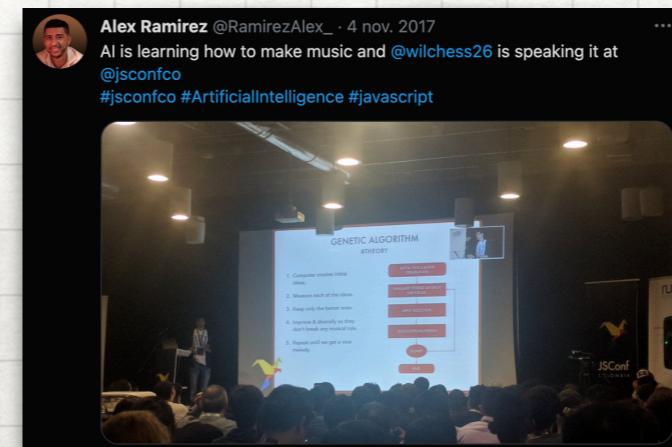
Date Added to IEEE Xplore: 21 March 2016 **DOI:** [10.1109/LA-CCI.2015.7435956](https://doi.org/10.1109/LA-CCI.2015.7435956)

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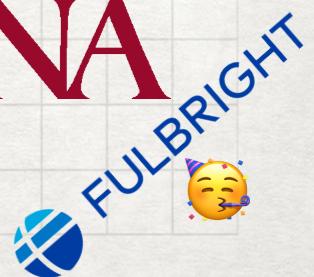


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- Introduction to Programming (VBA, PSInt)
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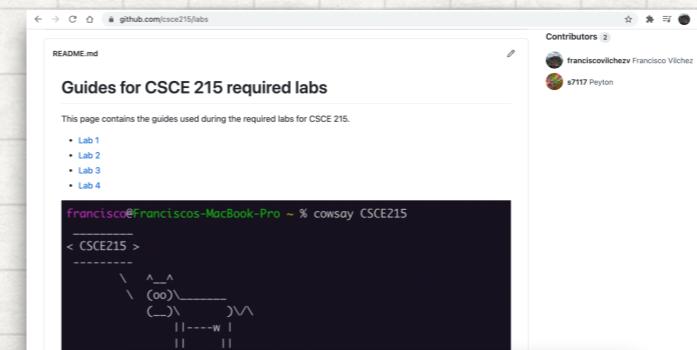
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github.com/csce215

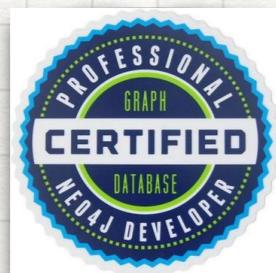
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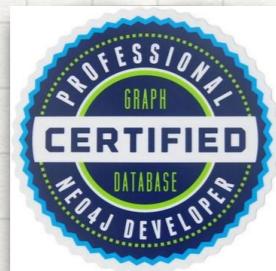
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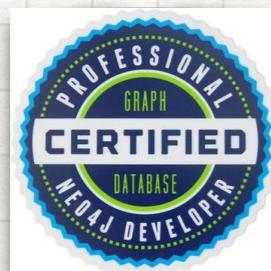
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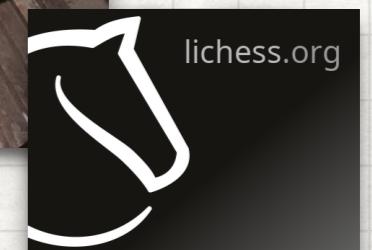
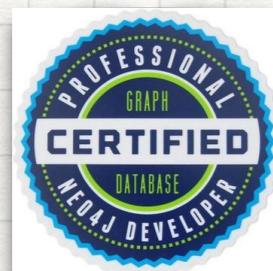
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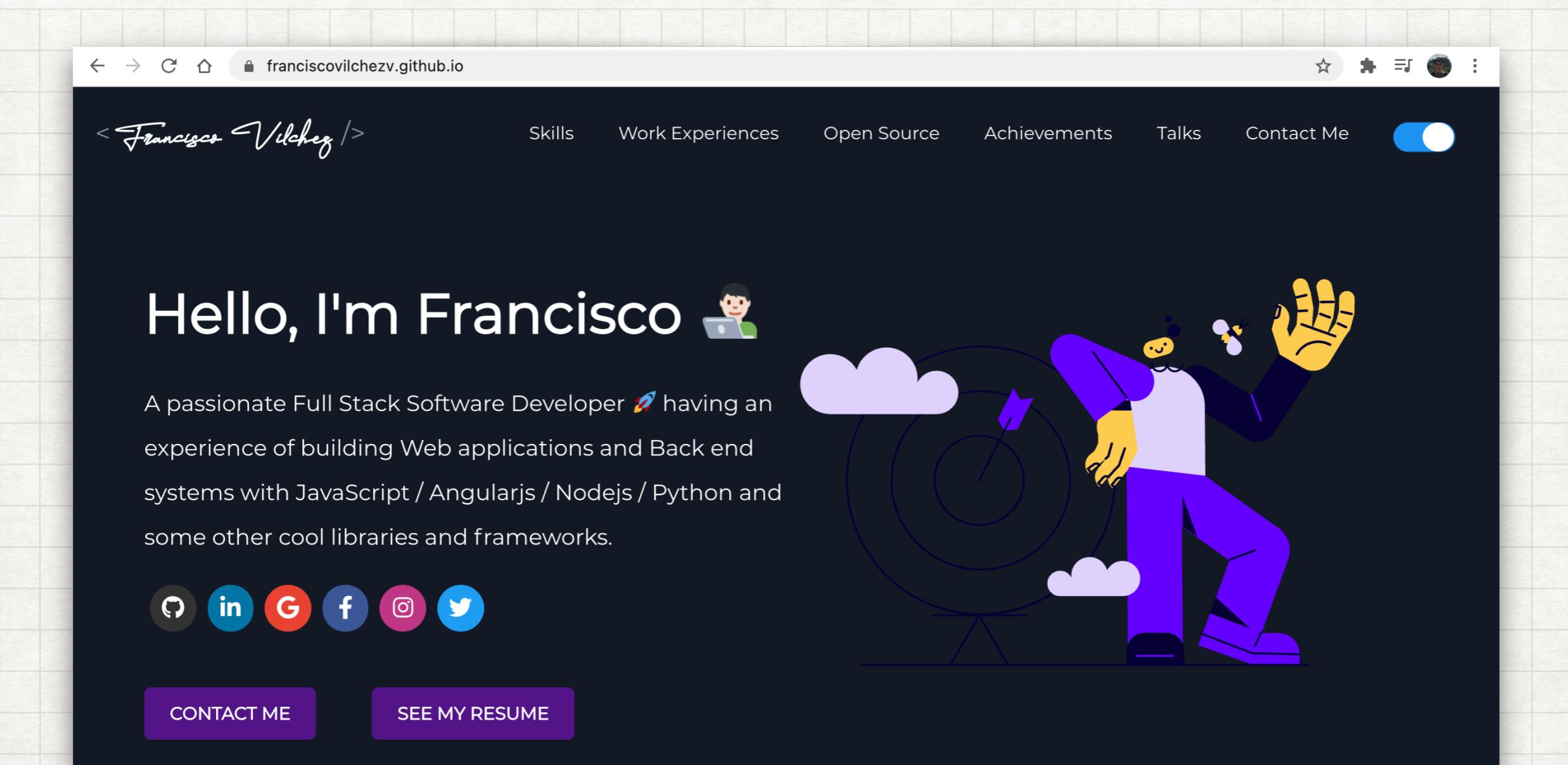
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2100+ rating (>94%)

FRANCISCO VILCHEZ



A screenshot of a GitHub Pages site for `franciscovilchezv.github.io`. The page has a dark theme. At the top, there is a navigation bar with links for Skills, Work Experiences, Open Source, Achievements, Talks, Contact Me, and a toggle switch. Below the navigation, the text '*< Francisco Vilchez />*' is displayed. The main content features a large heading 'Hello, I'm Francisco' with a small icon of a person using a laptop. To the right is a colorful cartoon illustration of a person in a purple suit and yellow gloves, standing next to a target with a lightning bolt hitting it, and a small bee flying nearby. Below the heading, there is a paragraph about the developer being a Full Stack Software Developer with experience in various technologies. At the bottom, there are social media icons for GitHub, LinkedIn, Google+, Facebook, Instagram, and Twitter, along with two buttons: 'CONTACT ME' and 'SEE MY RESUME'.

Skills Work Experiences Open Source Achievements Talks Contact Me

< Francisco Vilchez />

Hello, I'm Francisco

A passionate Full Stack Software Developer 🚀 having an experience of building Web applications and Back end systems with JavaScript / Angularjs / Nodejs / Python and some other cool libraries and frameworks.

[CONTACT ME](#) [SEE MY RESUME](#)



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Q&A SOBRE MI

DESARROLLO BASADO EN PLATAFORMAS



TODAY'S LECTURE

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- ¿Desarrollo basado en plataformas?

TODAY'S LECTURE

- ¿Desarrollo basado en plataformas?
- Motivación del desarrollo basado en plataformas.

¿DESARROLLO BASADO EN PLATAFORMAS?

PLATFORM BASED DEVELOPMENT (PBD)

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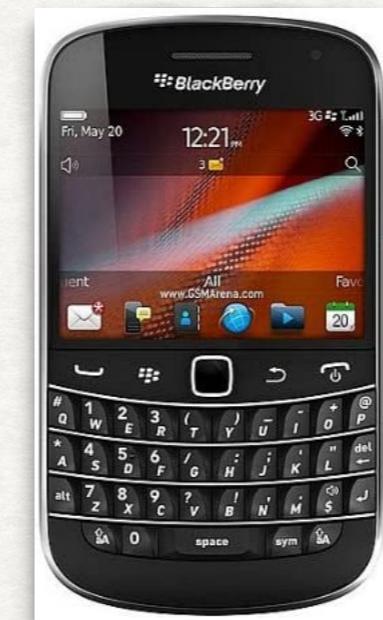
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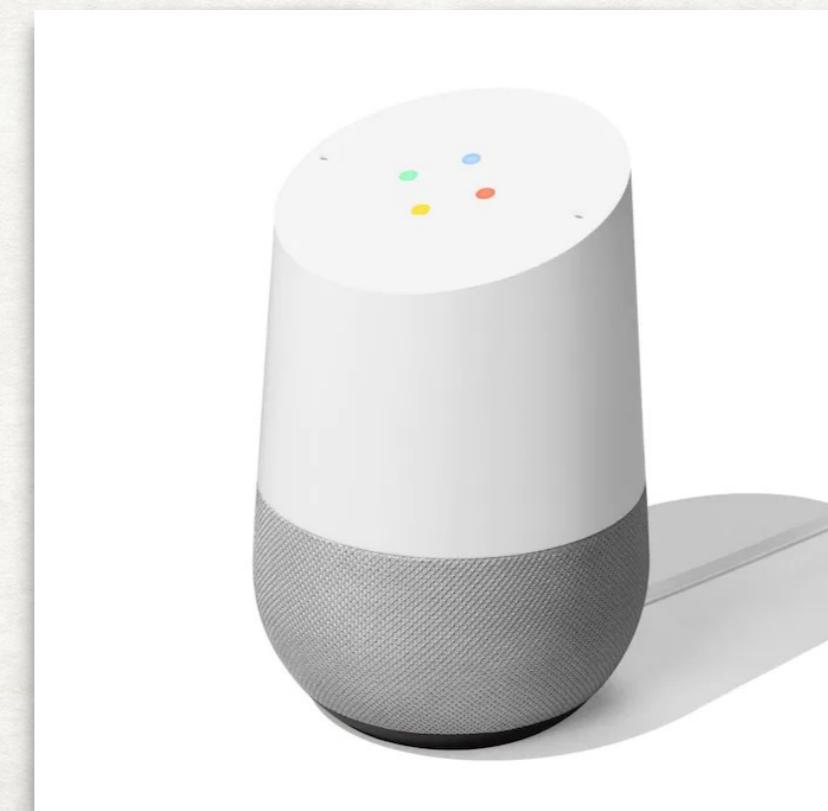
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PLATFORM BASED DEVELOPMENT (PBD)



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PLATFORM BASED DEVELOPMENT (PBD)

- Desarrollo Basado en Plataformas

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 - “(...) Design and development of software (...) that reside in a specific platform” - *Linfield University* [3]

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¹API: *software intermediary for exchanging data*

¿DESARROLLO BASADO EN PLATAFORMAS?

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 - También conocido como “Cross-Platform Mobile Development” (Stanford), “Mobile Web Design & Development” (CMU), etc.

¹API: *software intermediary for exchanging data*

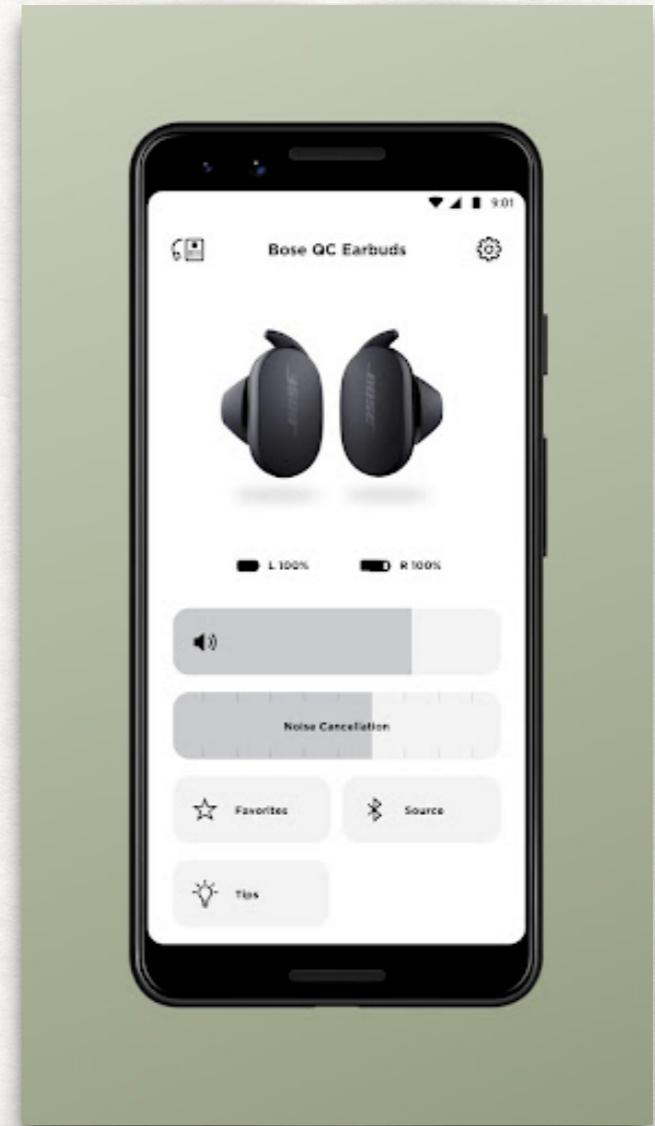
MOTIVACIÓN

¿POR QUÉ LA
IMPORTANCIA
DEL DESARROLLO
BASADO EN
PLATAFORMA?



MOTIVATION

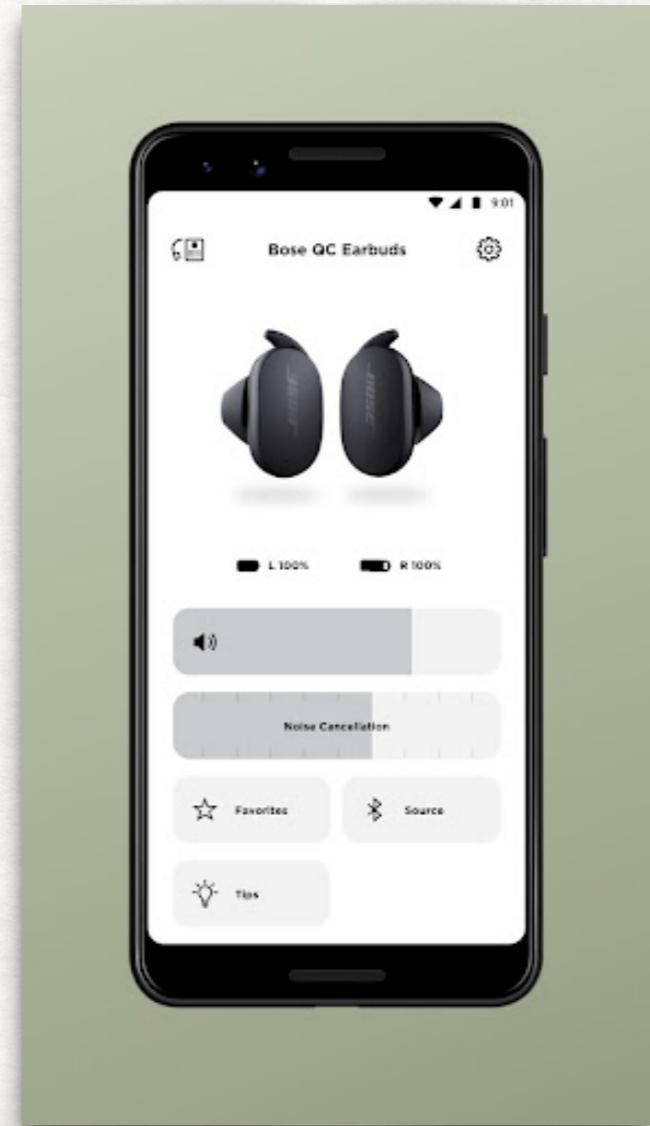
REAL CASE: BOSE



MOTIVATION

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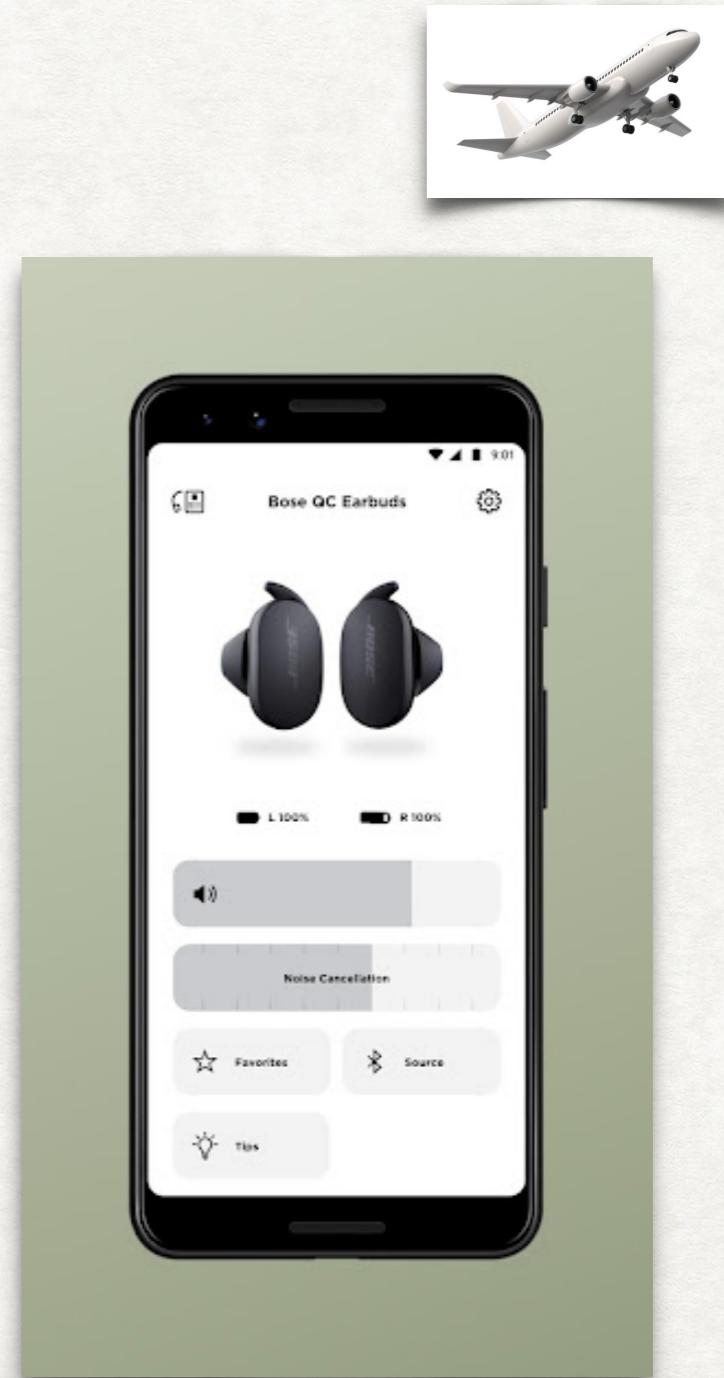
- Los “Bose Noise Cancelling headphones” fueron presentados como una solución para usuarios que querían escuchar música en ambientes con altos niveles de ruido, e.g. aviones.



MOTIVATION

REAL CASE: BOSE

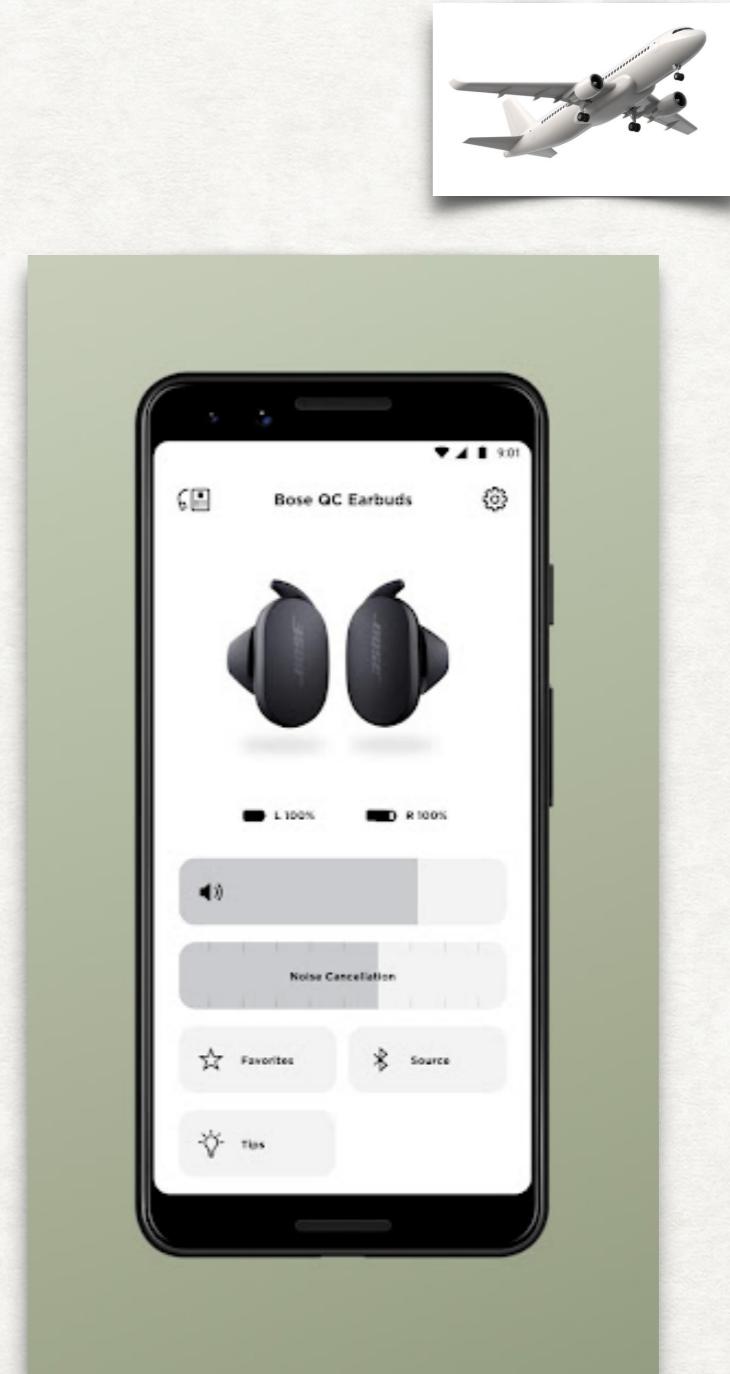
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- Los audífonos funcionaban mediante el uso de una app. Sin embargo, fue sorpresivo que la app solicitaba al usuario hacer “login” para controlar el audífono.
- ¿Cuál es el problema con esta funcionalidad?



MOTIVATION

KNOW YOUR CONSTRAINTS!



MOTIVATION

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- Debemos de conocer la limitaciones de la plataforma (hardware + OS) en la que vamos a programar antes de decidir el lenguaje, arquitectura, funcionalidades, etc.



MOTIVATION

KNOW YOUR CONSTRAINTS!

- Debemos de conocer la limitaciones de la plataforma (hardware + OS) en la que vamos a programar antes de decidir el lenguaje, arquitectura, funcionalidades, etc.
- En el curso conoceremos la limitantes de diversas plataformas así como de los lenguajes de programación usados en cada una de ellas.



BIBLIOGRAPHY

STAY HUNGRY, STAY FOOLISH

1. <https://martinfowler.com/articles/talk-about-platforms.html>
2. <http://foldoc.org/platform>
3. http://asteroid.cs.linfield.edu/~ymo1/linfield_courses/syllabus/senior/COMP405SyllabusSpring2018.pdf
4. <https://cs.utec.edu.pe/assets/files/syllabus/2021-I/CS2B01.pdf>

Q&A

