

# Arturo Barbero Pérez

## BACKEND SOFTWARE ENGINEER

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I am **Backend Software Engineer** with **4+ years of experience** in **Java** (Spring, Mockito), **Python** (Django, Unittest), **Cloud Platforms** (AWS, GCP) and **distributed systems** for financial projects at Openbank. I am looking forward to facing new challenges and continuing my career working on a project where I can keep learning.

**Distributed Systems** | **Java** | **AWS** | **Spring** | **Docker** | **MySQL** | **Clean Code** | **Microservices Design** | **CI / CD**

## WORK EXPERIENCE

### ► Backend Engineer at Openbank Oct 2020 - Present (3y, 10m)

I am currently Backend Software Engineer in the Risk & Compliance IT Department. I have been working in all the teams in this department. From projects related to approval of mortgages, loans, cards to dealing with arrears and a **Buy Now Pay Later** project called **Zinia**.

- **Designed, developed, tested and documented** a new microservice "Decision Taker BNPL" using **Java** (Spring, Mockito), Design Patterns (Factory Method, Rules, Facade) and **AWS** (S3, DynamoDB, CloudWatch, ECS) to make decisions on payments for a BNPL project in Netherlands. **Deployed in production in October 2021** and **scaled in 2 months** to operate in Germany and Spain.
- Designed, documented, and **led a technical migration** of Decision Taker's **Python** lambda architecture to **Java** microservice, using Spring Framework, Spring Cloud and **AWS** (S3, DynamoDB, CloudWatch, ECS) to improve service response time.
- **Developed, tested and deployed a new serverless microservice** using **Python** and **AWS** (Lambda, S3, DynamoDB, Step Function, X-Ray), which is responsible for listing Risk Management data used by other teams. **Released to production in November 2020**.
- **Deployed** more than 23 microservices to AWS (~80% of the Risk & Compliance's distributed architecture) using **CI/CD** tools (Docker, Bamboo, Harness) for several countries in 4 different environments (DEV, QA, STG, PROD).
- Worked with an **event-driven architecture** that uses **AWS SNS** and **implemented an API** by using **hexagonal architecture** to read customer information, classify their debt status and make decisions about it.

### ► Software Engineer at Director 11 Jun 2019 - Aug 2019 (3m)

Director 11 is a **subscription-based** sports management platform which centralizes, through different modules, all the data belonging to a football club so that they are able to increase efficiency in decision-making.

- **Developed and helped design a completely new module:** "Maintenance", using **Java**, Spring Framework, Hibernate and **MySQL**. Written good quality code by using Design Patterns (Adapter, DAO) and following the MVC architecture. The feature was **launched at the end of August**.

## PROJECTS

### ► Video Facial Detection System See code Sept 2019 - Sept 2020 (9m)

Deep Learning-based system which analyzes videos and finds faces with very unfavorable conditions in order to facilitate the process of forensics analysis and get rid of the need to analyze them manually.

- **Designed, developed and trained 6 different deep neural networks using Python**, TensorFlow API and **Google Cloud** (GCP), which detect faces in real-time with an **accuracy of 75%**. Trained using a data set with **32.000 images**.

### ► Android Application to Learn English See code Apr 2020 - May 2020 (2m)

Android native application which allows users to learn english by playing a game where the user needs to link words with their meanings to gain points and being able to unlock new vocabulary. Language: **Java**.

- **Designed the architecture** using Design Patterns (Factory, Adapter) and following the MVC architecture.
- Built the business logic and helped use a **REST API** (Wordnik) that provided information about words.
- **Designed and implemented** the entire Frontend using animations which improved the user experience.

## EDUCATION

### Universidad Complutense de Madrid BSc - Computer Science Sept 2016 - Sept 2020 (4y)

- **Deep Learning-based Thesis** graded with honors.
- Outstanding grades in: Cloud Computing, Machine Learning and Big Data, Advanced databases and NoSQL databases.

## CERTIFICATIONS

- **Cloud and DevOps - MIT Professional Education (80h):** Docker, CI/CD, AWS, Serverless ([See certificate](#)).
- **Engineering Practices for Building Quality Software - Coursera (18h):** Quality in Design, Architecture, Implementation, Testing and Deployment ([See certificate](#)).
- **Service-Oriented Architecture - Coursera (13h):** HTTP Protocol, Web Services, **REST API** ([See certificate](#)).

## LANGUAGES

- **Spanish** (Native speaker) | **English** (Advanced - C1)