

# Felipe Fukakusa

[felipefuka.com](http://felipefuka.com)

EU citizen - 21/11/1987

Basque Country, Spain

Tel: +34 673556918

Email: [felipefuka@gmail.com](mailto:felipefuka@gmail.com)

## WORK EXPERIENCE

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**CAF Power & Automation** | Basque Country, Spain

Senior Software Engineer

January 2019 – Present

Senior software engineer developing tools that facilitate the Train Control and Monitoring System (TCMS) design of trains using **Qt C++**, **CouchDB** & **AWS**

- Developed an **asynchronous** firmware updater for TCMS devices via cloud services and multiple threads
- Implemented ETL processes for train data in AWS **Glue** using **PySpark**, **Lambda**, **S3**, **DynamoDB** and **Athena**
- Obtained **AWS Solutions Architect, Developer** and **SysOps** Associate certifications
- Created and maintained **CI/CD** build processes in **Jenkins** integrated with automated GUI testing using **Squish**

**DHL Iberia** | Basque Country, Spain

Fullstack Developer

March 2018 – December 2018

**C# ASP.NET MVC** developer creating event-driven micro services using asynchronous programming and SOLID principles for two delivery management apps which are used by over 5000 couriers in Spain and Portugal every day

- Created an admin panel that is responsible for creating and managing accounts using **OAuth**-based sign-in, registering new delivery devices and real time monitoring of said courier/device pairs
- Implemented a data visualization page using **Razor** where up to date information on deliveries and online couriers can be seen in **real time**
- Developed a login credential system using **QR** codes and **NFC** cards for quick and easy app access
- Managed **CI/CD** build processes in **Jenkins** along with a Test-driven development (**TDD**) using Visual Studio

**Almis** | Basque Country, Spain

Lead Software Developer

September 2015 – February 2018

Lead developer implementing asset management and reporting software in **C/C++ (boost and STL)**, Java, Visual Basic & SQL

- Implemented a **Swift payment** module which is used to transfer cash from one client to another regardless of bank or financial entity (MT103, MT202, MT504 message types)
- Developed algorithms that generate (Banco de España) regulatory reports for the treasury department of major banks and financial institutions
- Upgraded and maintained the **Bloomberg market data** retrieval module in order to capture up to the minute data from more markets in our accounting and regulatory reporting software
- Created and maintained **CI/CD** build processes in **Jenkins** integrated with **non-regression** tests and **usability testing** (UX testing) with **Selenium**

**Innogen Technologies** | London, U.K. (remote)

AWS Developer

August 2014 – September 2015

Acquired AWS domain expertise and developed solutions using **AWS**, **Java** and **SQL**

- Created and set up **Oracle Retail Applications** (ORPOS, ORSIM, ORBO, ORCO) cutting down the delivery time from 10 days to just under an hour each using **CloudFormation** and **EC2**
- Developed serverless code that update and synchronize data between **EC2** machines and on-premises infrastructure using **Lambda** and **SNS**
- Managing user authentication, authorization, federated access and **Active Directory**

**Embraer** | São Paulo, Brazil

C/C++ Software Developer

July 2013 – July 2014

**C/C++** embedded software developer in the flight test division. Completed training in ARINC 429 technical standard

- Developed flight test data conversion software (IRIG Chapter 10 to iNet-X) with a 3.17x performance improvement using **shared memory read/write buffers** and **semaphores** from the **.NET** framework
- Implemented a **signal processing** application with error correction for telemetry data sent during flight tests

**Cornell University** | New York, U.S.

Network admin intern

January 2009 – August 2009

Analyzed traffic data using Nagios System monitor and **Wireshark**. Obtained **CompTIA Networking+** certification.

## PERSONAL PROJECTS

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**Stocks!** – stock screener and dividend calculator (API Gateway, Lambda, S3, Cognito, Angular) September 2020 – Present

**BuyAHouse** – real estate listings aggregator (Lambda, DynamoDB, SES, CloudWatch Events) August 2020 – September 2020

January 2021

## EDUCATION

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**University of São Paulo | Brazil** Grad: Jul 2014

B.Sc. in Computer Science, scientific research fellow

- Data Visualization Scientific research scholarship awarded for implementing FastMap algorithm in **C#** for large multidimensional datasets and navigating using gestures and **Microsoft Kinect**

**State University of New York | U.S.** Grad: Dec 2009

A.A.S. in Computer Forensics, Fulbright Alumni

- **Fulbright** scholarship awarded by the US department of State. Six month extension received in order to obtain degree.

## TECHNICAL SKILLS

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### Programming Languages

C#                      TypeScript  
C/C++  
Python  
Java  
Visual Basic

### Spoken Languages

English - **native**  
Portuguese - fluent  
Spanish - fluent  
French - intermediate

### Software

Visual Studio      MapReduce  
QT                      WebStorm  
SQL developer      Docker  
Wireshark            Office 365

Git  
PyCharm  
Amazon Web Services  
Google Cloud Platform