

# THIAGO LOUREIRO

## SOFTWARE ARCHITECT

### PROFESSIONAL PROFILE

With over thirteen years' experience in software development and architecture. Worked with complex and large scale applications, Microservices architecture, big corporate systems, enterprise applications, high performance/throughput systems

### SKILLS

.NET Core, C#, WebApis, CQRS, Actor Based Frameworks, MicroServices Architecture, gRPC, GraphQL, Service Discovery, API Gateway, SQL Databases, Redis, AMQP, MQTT, Design Patterns, SOLID Principles, DRY, KISS, D.I, GIT, Scrum, Microsoft Orleans, Azure Devops, CD/CI, TeamCity, VSTS.

### CONTACT DETAILS:

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Location: Perth - Western Australia

### COMPETENCIES

- Ability to manage teams and architecture discussions / decisions.
- Good communication skills
- Skilled in working with critical projects.

### CAREER HISTORY

#### Lead Software Engineer

Manufacturing Intelligence (Perth - Australia)  
May 2019 - present

Leading software development Team for one of the product's company "MI Modeller", modelling processes for ISA95 standards using the latest technologies, such as: .NET Core 2.2, Google Protobuf, NHibernate, PostgreSQL, Azure DevOps CD/CI, Kubernetes, Azure Boards. Coordinating the team and organising the tasks with the team members in 2 weeks sprints, training new members and knowledge transfer.

#### Lead Software Architect - Contractor

WeMakeTech (Brazil- Remote)  
Jul 2018 - Dec 2019

WeMakeTech provide solutions to customers, backend, frontend and mobile. Developing projects with .NET Core, Docker, DigitalOcean Droplets, SQL/NOSQL Databases, Redis, Big Data, Kubernetes. Azure DevOps Pipelines, GoogleCloud, Azure. Microservices, ActorBased Frameworks, MS Orleans.

#### .NET Senior Backend Developer

GiG (Malta)  
Sep 2018 - May 2019

Software development in the current platform, bugfixes, proof of concepts, working together with architects and team for new solutions with MicroServices Architecture using the latest technologies, .NET Core, PostgreSQL, Docker, Kubernetes, Ocelot API Gateway, SQL Server, RabbitMQ, Consul Service Discovery.

## ACADEMIC BACKGROUND

### UNIMES - Santos SP - Brazil

Gestão em TI - (IT Management)

- Attended from 2012 to 2015
- Superior Degree

## LANGUAGES

- Portuguese (Native)
- English Full professional proficiency

## CITIZENSHIP

- Portuguese
- Brazilian

## WORK PERMIT

Currently on 482 TSS Medium Term Visa

## CAREER HISTORY

### Lead Backend Developer - Contractor

Disruptiv Technologies - São Paulo - Brazil  
Jun 2018 - Dec 2018

Architecture and Development of Backend Software platform to integrate systems with Multimedia devices and IoT for Nissan Vehicles with MultiApp.

Worked in a IoT project with a proprietary company device to connect vehicles to cloud using MQTT, CloudAMQP, .NET Core, REST APIs, MessageBroker, NOSQL Databases, IoT Hub, Azure ServiceApps, Azure SQL Databases, Azure Virtual Machines.

Developed the complete CD/CI process with Azure DevOPS to the APIs and applications.

### .NET Senior FullStack Developer

Play'N GO(Malta)  
Jan 2018 - Jul 2018

Worked as .NET FullStack Developer, developing and maintaining current systems,

Microsoft Orleans Framework, SQL Server Database.

Developed components and Visual Studio extensions for the game Developers in Manilla, Budapest

### .NET Senior FullStack Developer

Scheduit (Malta)  
Jul 2017 - Nov 2017

Amico.ai Chatbot APP, Development of backend WebAPI, Entity Framework, Dapper, Caching (Redis), RabbitMQ, Micro Services, Unit Tests, Integration Tests.

- Company shutdown activities in November 2017 (Investor Issues)

### .NET Solutions Architect

IASTECH - São Paulo - Brazil  
Oct 2006 - May 2017

Worked more than 10 years at Iastech.

Iastech provides a complete stack of solutions and products for product to their customers (Ajinomoto, ArcelotMittal, Coca-Cola, Mondelez, Kellogs, etc)

Its main purpose is to ensure improved productivity at customers' facilities through integrated control, supervision, and management of all industrial processes. From consulting to training programs, from planning to execution and management, IASTECH is present from beginning to end, through all stages of the Industrial Automation process. Worked during this time as .NET Developer and Team Lead developing solutions, consultancy, instructor.

Technologies and Products:

.NET, SQL Server, Windows Forms, WebForms, Windows Services, Windows Mobile, Compact Framework, VBA, JavaScript, SignalR, WebSockets, TCP Remoting, OPC Servers, VMWare, ESXi.

Rockwell FactoryTalk Historian, FactoryTalk Metrics, FactoryTalk Vantage Point, FactoryTalk View, OSIsoft PI, AspenTech/AspenONE Manufacturing Execution Systems

# LATEST PROJECTS

## SunoResearch

### WeMakeTech - July 2019

Project Url:

<https://www.sunoresearch.com.br/fundos-de-investimento>

Suno Research is an investment analysis firm focused on providing the best information to the public interested in the capital markets. They bring information that was previously only accessible to large investors to the individual investor. Individual investors use Suno Research to make smart investment decisions.

The project was developed to provide investment fund information for more than 30,000 Brazilian companies in real time, performing complex calculations and displaying graphs, reports and statistics.

The project was completed in approximately 8 months and final delivery was made in July 2019.

The whole project stack is running on GoogleCloud, **Kubernetes** clusters and virtual machines.

The stack used was:

- **Angular 8 on Frontend**
- **.NET Core 2.2 on Backend**
- **SQL Server 2017**

The project consists of several services, one of them (and most importantly) is a .NET Core API where various technologies and concepts have been adopted, such as (**MemoryCache, Dependency Injection, Serilog, JWT, Dapper, Async / Await**). This API is hosted on **Kubernetes Cluster** with high availability and scalability.

There are 4 more .NET Core services where they are responsible for collecting investment fund data from various sources, CDI and Ibovespa data and inserting them into the database.

The SQL Server database currently has about 100GB of data. Data has been partitioned for better query and processing performance. Multiple Jobs are performed daily to perform complex calculations and the data is ready for the API to consume.

Project pipelines were created in **Azure DevOps**, the project have a full CD/CI solution implemented, where **Docker** containers are automatically generated after testing and validation, and within minutes the new version is automatically published without requiring user intervention / infrastructure staff to deploy.

**Git** was used as version control.

For application performance monitoring is used **AppMetrics, Grafana** all running on the **GoogleCloud** stack, being able to monitor response time of endpoints, failures.

For log monitoring, **ELK** was implemented, namely: **ElasticSearch, LogStash** and **Kibana**, being able to verify all logs generated by the services in an easy and friendly way for the infrastructure team.

I participated in the architecture, development and design of the project from the beginning, and the FrontEnd part (Angular 8) was developed by the company's FrontEnd team and all the backend, architecture, infra and services were developed exclusively by me.

## **GiGPay**

### Gaming Innovation Group - September 2018

GiG is a company that provides casino platform services to customers across Europe.

The GiGPay project was designed to be a payment gateway integrated with GiG's current platform.

The project was developed using the latest technologies in the market, .NET Core 2.2, Redis, PostgreSQL, RabbitMQ / Kafka, EntityFramework Core, Dapper, Docker Containers, Kubernetes Cluster.

Microservice-based, event-oriented architecture.

## **Cosmos**

### Disruptiv - July 2018

Disruptiv is a Brazilian startup providing services to automotive customers, Nissan and Mitsubishi.

The Cosmos (backend) platform was developed to integrate the multimedia centers installed in vehicles with cloud systems.

The entire project platform is hosted on Microsoft Azure using features such as App Service, Azure SQL Databases.

The application developed in .NET Framework is responsible for managing the backend and communication with thousands of vehicles connected in real time.

The system includes high availability, communication speed, stability and performance.

Advanced security and encryption mechanisms have also been implemented to ensure the security of trafficked information.

Full CD/CI process implemented integrated with Microsoft Azure

## **Andromeda**

### Disruptiv - July 2018

The Andromeda platform was designed to integrate a device developed by the company's engineering team with data that is collected via OBDII from connected vehicles.

Protocols like AMQP (CloudAMQP) were used in this project, .NET Core 2.2 applications and APIs were implemented, SQL and NOSQL databases for data storage.

Project has a complete CD / CI framework via Azure DevOps

# OPEN SOURCE PROJECTS

## Ocelot - API Gateway - Contributor

Project Url:

<https://github.com/ThreeMammals/Ocelot>

Ocelot is a .NET API Gateway. This project is aimed at people using .NET running a micro services / service oriented architecture that need a unified point of entry into their system. However it will work with anything that speaks HTTP and run on any platform that ASP.NET Core supports. Acting as contributor and developer in this open source project.