

Marcos Vinicius Ribeiro Silva

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I am Brazilian with Italian citizenship. I'm currently in Ireland since April of 2022. I'm a Software Engineer with a master's in Computer Science. I have extensive experience with software engineering working as a back-end and full-stack developer. I worked in software engineering, research and development, and the artificial intelligence areas in several companies. I am looking for a new job opportunity in Ireland as a software engineer to add my experience and solve complex challenges.

Education

Master of Science in Computer Science

Federal University of Goiás

Goiás, Brazil

2019 to 2021

Bachelor of Engineering in Software Engineering

Federal University of Goiás

Goiás, Brazil

2015 to 2018

Experience

Senior Software Engineer / ML Engineer (Full-time)

Center of Excellence in Artificial Intelligence - (CEIA), Brazil, Site: [LinkedIn](#)

January 2020 to Present

Full-stack developer and ML Engineer member in developing a conversational chatbot platform for industry and government.

Working as a **Full-stack developer** in the Development area, I have activities:

- Build server and pipelines to chatbot framework in back-end using C# (.NET MVC and Core), TypeScript Node.js and Python.
- Design and build features and components in the front-end using TypeScript, React, VUE/Nuxt.js frameworks.
- Build REST API's microservices using ADO .NET, Express and FastAPI frameworks to support chatbot components.
- Build a persistence layer for Databases using SQL scripts, Entity, KNEX and SQLAlchemy frameworks and AWS SDKs.
- SQL Databases: PostgreSQL, MySQL and Oracle for relational data.
- NoSQL Databases: MongoDB and Amazon DynamoDB for pipelines, datasets, and flows.
- Container Administration (Kubernetes, Amazon ECS and EKS).
- Construction of environments for development and deployment (Docker containers, NPM and Anaconda).
- Deploy system in Cloud Computing using AWS Load Balance, Lambda, API Gateway and S3.
- Build unit and integration tests.
- TDD implementation method.
- Use Git version control and Scrum agile method.

Working as a **Machine Learning Engineer** in the P&D area, I have activities:

- Construction of personal document images datasets for training machine learning models.
- COCO annotation datasets.
- Modelling Convolutional Networks (YOLO V4 and V5, Inception, NIN, and Perceptron) using TensorFlow and PyTorch.
- Optimized deployment optimized models using ONNX framework.
- Model performance/training using Google Cloud Computing and AWS Cloud Computing.
- Text recognition from images using Tesseract OCR, Google Cloud Vision OCR Engine and ABBYY SDK.
- Image processing using computer vision concepts and OpenCV and Python library.

Machine Learning Researcher (Part-time)

Federal University of Goiás, Brazil, Project Paper: [Paper](#)

February 2019 to September 2021

Researcher in the area of artificial intelligence, in which I proposed a new method of diagnosing abnormalities in newborns. The study uses:

- Design and build system environment and microservices in Python language to execute machine learning models.
- Architecture and deploy pipelines to support models microservices in Amazon Web Services.
- Systematic Review.
- Digital Libraries (ACM, IEEE, PubMed).
- KDD approach.
- Process and transformation data.
- Image and videos transformation using computer vision concepts and OpenCV and Python libraries.
- Modelling of CNN Models (Inception, YOLO, and NIN) using TensorFlow and PyTorch Python libraries.
- Transfer Learning techniques.
- Hugging Face Repository.
- Data Mining algorithms (Decision Trees, K-mean, kNN, Naive Bayes and others) building in Scikit-Learn Python library.
- Ensemble of Neural Networks evaluation.
- K-Folders Cross Validation.
- Accuracy, Precision, Recall, and F1-Score metrics.
- Data Visualization using Seaborn and Matplotlib Python libraries.

Senior Software Engineer (Full-time)

SIAGRI - Software for agribusiness, Brazil, Site: siaagri.com.br

November 2017 to February 2019

Worked to fix and improve legacy ERP systems being responsible for:

- Software Developer with C# (.NET, .NET Core and .NET MVC) and Delphi languages.
- Build REST/SOAP APIs for integration systems.
- Build, fix and improve layers of business rules.
- Build a persistence layer for SQL Databases using EntityFramework, ADO Connections, FireDAC and Spring Framework.
- Build new features with microservices.
- Database architecture.
- SQL Databases: SQL Server, PostgreSQL, MySQL, and Oracle SQL.
- SOLID, MVC, Creational, Structural and Behavioral Patterns.
- Analyst priorities, impact, and feasibility of changes.
- Use Git version control and Agile methods.

Senior Software Engineer (Full-time)

SIACON - Software for agribusiness, Brazil, Site: siacon.com.br

May 2017 to November 2017

Worked to fix and improve legacy ERP systems being responsible for:

- Software Developer with C# (.NET, .NET Core and .NET MVC) and Delphi languages.
- Build SOAP APIs for integration systems.
- Build a DLL that uses computer vision technics to read plates of cars and trucks in Images using OpenCV in C++ language.
- Automation of registrations using web services.
- Build new features with web services.
- Database architecture.
- SQL Databases: SQL Server and Oracle SQL.
- SOLID, MVC, Creational, Structural and Behavioral Patterns.
- Analyst priorities, impact, and feasibility of changes.
- Use Git version control and Agile methods.
- Developer using Design Patterns.

Software Engineer (Full-time)

Jave Informática LTDA, Brazil, Site: javeinformatica.com.br

September 2013 to September 2016

Worked to fix and improve legacy ERP systems being responsible for:

- Software Developer with C# (.NET framework) and Delphi languages.
- Create reports and data visualization using PowerBI.
- Build new features with microservices.
- Database architecture.
- SQL Databases: SQL Server.
- MVC pattern architecture.
- Analyst priorities, impact, and feasibility of changes.
- Use SVN version control and Scrum agile method.

Skills

Concepts: Machine Learning, Big Data, Computer Vision, Agile Methods, Clean Code, Design Patterns.

Languages: Python, Node, TypeScript, JavaScript, C#, Delphi, SQL.

Frameworks: Next.js, VUE/Nuxt.js, React, TensorFlow, OpenCV, Keras, PyTorch, Anaconda, NPM, .NET MVC, .NET Core, ASP .NET.

Technologies: SQL and non-relational Databases, REST/SOAP API's, Docker, Git, Azure, Cloud AWS, Google Cloud Platform (GCP).