# Samuel Santos

## **Software Engineer**

# Full Stack Senior C# Developer

JavaScript & SQL

B2 - English Proficiency Native Brazilian Portuguese

#### Samuel Antonio Basto dos Santos Filho

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Skills: C#, .NET, SQL, JavaScript, jQuery, AJAX, React, AWS, RESTFul

I've been working in Rio de Janeiro, Brazil for more than 25 years in software development and team management in Brazilian IT and Fintech companies.

Available to start work right now on a full or part-time remote job at 4PM-6AM GMT.

#### Certifications

- <u>Data Visualization Certification January 17, 2024</u>
   Build charts, graphs, maps with JavaScript, D3.js, Babel, JSON API, AJAX
- Front End Development Libraries January 13, 2024
  Build Single Page Applications (SPAs) with HTML, Bootstrap, Sass, SCSS, JavaScript, React, Redux, Babel.
- <u>JavaScript Algorithms and Data Structures January 5, 2024</u> Build interactive interface using JavaScript fundamentals, Object Oriented and Functional Programming, Algorithms, Local storage, API Fetch data.
- Responsive Web Design December 28, 2023
   Build web pages with HTML5, CSS, SCSS, Flexbox and CSS Grid.
- <u>Foundational C# with Microsoft December 11, 2023</u> Build C# applications using core concepts and object-oriented programming principles.

#### **Profiles**

- GitHub
  - https://github.com/sabsfilho
- Microsoft
  - https://learn.microsoft.com/en-us/users/samuelsantos-1448
- HackerRank
  - https://www.hackerrank.com/profile/sabsfilho

#### **Bio & Skills**

I've been working in Rio de Janeiro, Brazil for more than 25 years in software development and team management in Brazilian IT and Fintech companies.

In the last 10 years, I have been working exclusively remotely in a small Fintech company that develops stock market trade solutions, including a stock portfolio management system that autonomously makes smart and fast trade decisions.

Supported by some Artificial Intelligence ideas using math and statistical algorithms, plus data mining a stock quotes data mart, the system can predict and send trade signals to stock exchange brokers. This data mart is daily updated from our stock quotes database that is automatically filled in from Bovespa stock exchange.

I am a Mechanical Engineer graduated from the Federal University of Rio de Janeiro in

2001, who started to love programming in C in the Robotic Lab and never stopped coding since then! I really do coding for fun!

I also specialized in System Project Management from Pontificia Universidade Católica in 2005, but everything I learned was by myself reading and practicing a lot!

I am looking for the opportunity to work remotely in IT projects and use the strong skills that I have developed during my great code years to collaborate for even more successful implementation.

These are some skills I daily use for my current project:

- Backend using C# in VisualStudio
- Frontend (static and dynamic online refresh data) using ASP.NET, CSS, SCSS, Sass., HTML, HTML5, JavaScript, JQuery, React, Redux, D3
- Communication using RESTful API, XML, JSON, Financial Information eXchange (FIX)
- Database manager, architect, tuning and procedure programing in SQL Server
- Data mining on Data Warehouse and Data Mart text files
- Project Management using GitLab, Activecollab and Trello
- IIS web server manager
- AWS Manager and API integration developer
- Software Development
- Web Development
- SQL Database Design and Architecture
- ECommerce Development
- Software and revision control using GitHub and Subversion

Looking forward to being part, as a collaborative, mindful and spirited senior software developer, of your project, please consider my profile.

I am here to help, coding is my passion !!!

Thanks for reading about me.

### Experience

#### Putcallbot / Full Stack Senior Developer

September 2013 - PRESENT, Rio de Janeiro, RJ - Brazil (full time remote)

With my financial background in stock market trade, the BoxBrazil former CEO and founder decided to propose a new challenge, a system to manage his stock portfolio that could make smart and fast trade decisions.

After 2 years, this project became a software product named PutCallBot.

PutCallBot is a software solution that evaluates quantitative analysis from real time Bovespa exchange market data, sending buy and sell signals to brokers according to the algorithmic strategy chosen by the trader. Our automated trading system is a very powerful web platform that allows our clients to work from any web browser or device.

On the web interface, the trader can configure several strategies and the transactions that were made by the robot can be watched.

It is also possible to send manual orders and let the robot manage them. The trader can work with virtual orders or set to route them to his broker. One or more broker accounts can be saved and used. We are integrated with the largest Brazilian brokers, like BTG, Genial and XP Group using RESTFul API and other protocols like the Financial Information eXchange (FIX). Nowadays we are integrated to these brokers using a proprietary tailor made solution which I've built directly on the electronic trading Metatrader platform coded using C++ language.

Our platform allows the trader to create, debug, test, optimize, and execute trading robots in an exclusive environment totally independent from the production server. The user can request a development server to safely build and test their algorithmics. When the work is done, all these strategies can be published to production in the real world environment.

The backtest environment reproduces the real world condition because all ticks captured in production and used by the robot are saved and exported to the backtest server in the same order that happened.

PutCallBot is a multi-client server application, which has been developed for running on Windows Microsoft platform and **uses the AWS cloud solution**.

The user interface uses HTML5 standard and the dynamic content is written in JavaScript language code using JQUERY, JSON and AJAX. In the server side, the application is written in C# language, uses the .NET Framework resources and is hosted in IIS web server.

All code produced is protected under Subversion software versioning and revision control system. For user record and transaction data persistence, SQL Server database solution is used.

Our system is certified by Bovespa Exchange compliance for routing client orders. I was responsible for writing and sending all documents requested by them.

For the database solution I decided to use a hybrid model using a conventional relation table model in **SQL Server** for our customer information and profile. Because of the high volume of data and transactions, I decided to use a file system model, using an object oriented model concept and a straightforward CSV for the quotes tickers.

In the year of 2023 I started a project to use some **Deep Learning** techniques using the **ML.NET Framework** with the purpose of getting better results in our prediction models. For this project I started to use **VS Code** and **Google Colab** for my training using some libraries and models using **Python**, **Pandas**, **Jupyter**, **Sseaborn**, **Scikit-learn**, **Keras and TensorFlow**. But it is still in my early days of knowledge so I am not proficient yet. However, it is something that I am really curious and currently interested in.

#### BoxBrazil / DevOps Engineer

October 2010 - September 2013, Rio de Janeiro, RJ - Brazil (partial remote)

The SFR Previtec former CEO and founder, a little after selling his shares to Itau Bank, made me an offer to build an IT team to join his new business, which was a startup that would help solve some logistics problems to send parcels from the US to Brazil, using our tech background.

His proposal included the possibility to work remotely and at that time it was pretty new and it was very attractive to me.

I hired 1 senior and 3 junior developers and outsourced the front end to Chop-Chop.org (Poland) and some backend procedures to Tatvasoft.com (India) team.

We developed a E-Commerce application integrated with Amazon Store API, Backoffice CRM for our workers, HelpDesk integrated to LivePerson customer service solution. All these coded in C# using Visual Studio tools and .NET Framework, using SQL Server database, .NET Entity Framework, DevExpress UI Controls and HTML5, jQuery, AJAX, RESTFul API.

We hosted our website and applications on IIS servers in the Softlayer (now IBM).

We integrated our system with some partners like the Brazilian Post Office Correios, DHL, Amazon Merchant, PayPal, PagSeguro, Cielo, SafetyPay, Authorize. NET, FirstData, FirstBank, Bradesco Bank. We used **RESTful API** for some of these integrations and old fashioned raw data to Bradesco Bank process services and taxes payment.

In order to process Credit Card payments transactions and store its data, we implemented the PCI compliance data security requirements on our solution.

After 2 years, the company was settled with almost 50 employees, but we had problems with customs bureaucracy, unexpected cargo delays, package loss and theft.

The owner decided to close this company but proposed another challenge to me, working in PutCallBot a fintech project described earlier.

#### Itau Previtec / Software Engineer

July 2000 - October 2010, Rio de Janeiro, RJ - Brazil

Itau Previtec was created in 2009 by a joint venture between SFR Previtec and Itau Bank, the largest banking institution in Brazil. It was bought by Sinqia Company in 2020.

SFR Previtec was the greatest market share pension administration IT solution in Brazil,

with almost 100 employees, distributed across Rio de Janeiro, São Paulo and Recife cities.

I started there as an intern and worked as a software developer in the financial instruments management system department.

After 2 years, I was hired as a software engineer.

Our tech team supported the business team to handle the pension fund portfolio, like Stocks, Derivatives, Private and Public Bond Securities.

In the early days, we did the transition from COBOL database to Access database using Visual Basic.

It was a Windows Application suite having UI Forms and an embedded database.

Later on, we started to develop a client-server model using ASP and HTML.

When Microsoft launched the .NET Framework using C# language, I joined the project to do another important transition to SQL Server database.

As we had our own datacenter, we started to provide a new client-server solution developing a web portal platform providing all legacy applications in a new friendly way for our clients.

This portal provided a scale and robust solution that allowed our company to expand the business plan and get more larger clients.

After 6 years, I was promoted as IT Manager and our team developed and maintained the pension fund employee records and related applications.

We also developed a data management system to be used by the board of pension fund directors to make fast decisions.

It was supported by a data warehouse using Microsoft OLAP solutions.

My last project was a pension fund simulation that was a web application with a mobile UI using HTML5, CSS, JSON, JavaScript, JQuery, MS SQL Server, C# and .NET Framework

#### **Education**

### Pontifícia Universidade Católica-PUC / System Project Management

2005-2006, Rio de Janeiro, RJ - Brazil

Everything I had learnt was from self study practicing in software development projects. As I graduated in Mechanical Engineering, I thought it would be interesting to get a Master degree in **Computer Science** in order to get more theory background.

#### Federal University of Rio de Janeiro - UFRJ / Mechanical Engineer

1995-2001, Rio de Janeiro, RJ - Brazil

Engaged in a 3 years internship Brazilian Government funded program (CNPQ) doing research projects in the Robotic Lab.

I started programming codes for **Stepper and DC motors controllers**.

This period made me love coding! Working with electronic engineers, I could learn **C programming** with the masters in a fascinating real world.

My last project to get my degree in Engineering was awarded by EMBRAER. I developed a system to capture the digital signal and record it in a text file database. I also did the UI to plot charts and statistical data reports. This system was used to help an orthodontist researcher to get his PHD degree. This system was coded in the Borland C++ Builder 6.

#### **Awards**

ABCM-EMBRAER 2004 prize in undergraduate category.

A Digital System for Measurements in Gypsum Molds for Orthodontics Mechanical Engineering Department