

# FABIO COUTINHO DOS SANTOS

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🐙 github.com/fabio-coutinho-dos-santos 🌐 portfolio

## Education

**Pontifícia Universidade Católica of Minas Gerais / PUC-MG**

*Master's in Computer Science*

**Aug. 2019 – Mar. 2022**

*Belo Horizonte, Minas Gerais, Brazil*

**Pontifícia Universidade Católica of Minas Gerais / PUC-MG**

*Bachelor in Computer Engineering*

**Aug. 2013 – Aug. 2018**

*Belo Horizonte, Minas Gerais, Brazil*

## Goal

Senior Back End Developer position.

## Personal Statement

Master's in Computer Science and Bachelor's in Computer Engineering, I bring a 10-year journey marked by constant evolution. From experiences in military discipline to the relentless pursuit of excellence in software development, I'm deeply motivated. A team player, I thrive collaboratively, valuing diverse perspectives. A fast learner, I adapt swiftly, contributing effectively to team goals. My unique blend of technical expertise and teamwork commitment positions me to make meaningful contributions.

## Experience

**Mensis Tecnologia**

**Set. 2020 – Current**

*Senior Back End Developer*

*Remote, Brazil*

- Developed REST APIs using Node.js, Express, NestJs, Laravel, and Python, and integrated them seamlessly with MongoDB and MySQL databases.
- Implemented a micro-services architecture on Google Cloud Platform (GCP) and Amazon Web Services (AWS) and deployed services on Cloud Run, EC2, GKE, Cloud Functions and Lambda functions for efficient scaling and management.
- Utilized Docker for containerization and configured deployment triggers in GCP for CI/CD using GitHub Actions and Cloud Build, ensuring a streamlined development lifecycle.
- Collaborated cross-functionally throughout the entire development process, utilizing Jira for task management and GitHub Actions to create comprehensive CI/CD pipelines. Fostered strong relationships with clients, incorporating their feedback into the development process
- Designed and implemented front-end solutions with Ionic, Angular, Laravel, Bootstrap, and React, ensuring a user-friendly and responsive interface.
- Collaborated with the team to design and implement new functionalities, prioritizing client needs and enhancing overall user experience.
- Created deployment manifests in Kubernetes to facilitate efficient scaling and management of micro services, incorporating both queue protocols and HTTP in the design.
- Established observability strategies using Open Telemetry, Promtail, Prometheus, and Grafana, enhancing the monitoring capabilities of the developed systems, and integrated RESTful APIs with a payment gateway for seamless transaction processing.

**4Cadia**

**Mar. 2022 – Jun. 2022**

*Senior Back End Developer*

*Remote, Brazil*

- Worked on a horse racing betting system.
- Responsible for developing, testing, and documenting new features in a REST API using NestJs.
- I worked with AWS cloud services with EC2, S3 and Cognito
- Responsible for providing support to other developers and performing code reviews
- Developed new front-end functionality using Bootstrap 5 and Angular.
- Task management conducted through Jira and Figma.

**Capes - PUC Minas**

**Aug. 2019 – Mar. 2022**

*Researcher*

*Belo Horizont, MG, Brazil*

- Successfully completed a master's degree in computer science, demonstrating a strong academic foundation and commitment to continuous learning.

- Integrated academic research seamlessly into practical applications by working on various projects that involved building REST APIs with Node.js and Express.js.
- Applied expertise in front-end and mobile frameworks such as Angular, Ionic, Android, and React Native, showcasing versatility in development technologies.
- Elaborated on a dissertation that focused on the construction of a deep neural network, combining it with a REST API to enhance network security in IoT applications.
- Utilized TensorFlow and Python for the implementation of the deep neural network, and employed Node.js and Express.js in the development process, showcasing a comprehensive skill set in cutting-edge technologies.

## Projects

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**Payment Gateway to Mercado Pago API** | *Node.js, GCP, Jest, TS, TypeORM, MongoDB* **Oct 2023**

Micros-service developed to integrate a application with the Mercado Pago Payment Api to use the pix payment method. Implemented applying clean architecture and SOLID concepts with high level of test cover. In addition was built the pipeline CI-CD to deploy in Cloud Run GCP service. This is a private project to Mensis.

**Portfolio** | *React.js, TypeScript, GCP, Node.js, MongoDB* **Sep. 2023**

This portfolio has been developed using React with TypeScript, CSS, Sass, and Bootstrap. It includes an authentication REST micro-service developed in Node.js using NestJS with TypeORM and MongoDB database deployed in GCP Cloud Run service.

**Esthetic Clinic Manager** | *Node.js, Express.js, AngularJs, MongoDB* **October 2018**

An application designed to manage clients and operations of an aesthetics clinic. It features a login system with JWT token authentication, as well as functionalities such as generating PDF anamnesis forms, and CRUD operations for clients, products, and procedures. The technologies used were Angular, Node.js, and MongoDB. Production deployment of the backend was done using Docker on a Render service, and the database was hosted on the MongoDB Atlas service.

## Technical Skills

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**Languages:** Node.js, Python, C, JavaScript, Typescript, PHP

**Databases:** Mongo, MySQL and Postgres

**Development Frameworks:** React, Angular, NodeJs, NestJs, Laravel, Bootstrap, Express.js

**Developer Tools:** VS Code, Docker, Docker-compose, k8s, Nginx, Git, Swagger, Postman, Jira, Tensor Flow, RabbitMq, Apache Kafka, GitHub Actions, OpenTelemetry, Grafana

**Cloud services:** GCP - AWS

## Awards

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**Graduation Gold Medal** **2018**

*Academic highlight*

*PUC - MG*

Highest grade point average of the Computer Engineering Undergraduate class close to 91

## Academic Publications

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**IoTSafe: Attack Detection Based on Deep Neural Networks** **2023**

<https://sol.sbc.org.br/index.php/courb/article/view/24579>

**IoTSafe - An Architecture based on Fog Computing to Provide IoT Security** **2021**

<https://sol.sbc.org.br/index.php/wcga/article/view/17121>

**Understanding the Performance Impacts Of Cross-Platform Development On IoT Applications** **2019**

<https://dl.acm.org/doi/abs/10.1145/3428658.3431082>

## Languages

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- Portuguese: Native
- English: Level C1 (EF SET Assessment)