

MATEUS M. FURQUIM MENDONÇA

Machine Learning and Software Engineer

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Brazil

PROFESSIONAL SUMMARY

Highly skilled software engineer with over 10 years of experience and a diverse background. Committed to team growth and innovation through effective mentoring and collaboration. Strong problem-solving skills with a passion for delivering high-quality software solutions.

WORK EXPERIENCE

Machine Learning Engineer

Amaris | AB InBev

Jul 2025 – Present

Remote

Developed scalable microservices using a multi-tier routing topology in RabbitMQ to decouple publish-subscribe communication.

- Implemented an in-memory Redis caching layer to meet low-latency requirements for real-time AI model inference.
- Applied the Repository Pattern abstract data access logic, allowing for parallel development across teams and improving code maintainability.
- Monitored production performance and system health using New Relic, ensuring high availability and reliability of deployed ML services.

Back-end Developer

DevGrid | Voltaware

Jan 2021 – Jul 2025

Remote

Managed several microservices that employ machine learning algorithms to estimate house appliances' energy consumption.

- Achieved up to 59% improvement in Python write operations on Cassandra through the safe utilization of unlogged batches.
- Iteratively improved domain models following Domain Driven Design approach, increasing efficiency in delivering new features.

Embedded Software Developer

Autotrac

Nov 2019 – Aug 2020

Brasilia, DF - Brazil

Maintained security and logistic features of an embedded system for a customized hardware and Linux kernel.

- Employed dependency injection and other SOLID principles to enhance C++ code quality and maintainability.
- Implemented monitoring solutions to gather real-time performance data, ensuring optimal system efficiency and responsiveness.

DevOps Consultant

IBM

Jan 2019 – Nov 2019

Brasilia, DF - Brazil

Collaborated with multiple teams to improve observability of the back-end services of a prominent banking institution.

- Contributed to self-discovering services feature using etcd key-value store, consistent hashing and a federation of Prometheus.
- Employed PromQL to develop alerts that detected low performance of new deployments and potential DDoS attacks.

INTERN EXPERIENCE

Security Software Researcher

LADES at UnB

Nov 2015 – Jul 2016

Brasilia, DF - Brazil

Enhanced an Intrusion Detection System with unsupervised machine learning to strengthen the security measures of the Brazilian Army.

- Configured a Debian server to capture all network packets in promiscuous mode using Wireshark and replay them in a controlled environment.
- Successfully detected masked malicious network packets using K-Means clustering algorithm and distributed processing with Spark and Hadoop.

Software Engineer Intern

CanAssist at UVic

Jan 2015 – Apr 2015

Victoria, BC - Canada

Developed an elderly care embedded system which notifies relatives in case of emergency.

- Devised an automated data-driven regression testing methodology, improving the efficiency of the testing cycle and ensuring alignment with requirements.
- Accomplished a low resource consumption of Raspberry Pi by rotating log using the C/C++ language and the Qt Framework.

EDUCATION

Machine Learning DevOps Engineer

Udacity

Nov 2021 – Dez 2022

BEng. Software Engineering

Universidade de Brasilia (UnB)

Brasilia, DF - Brazil

Mar 2011 – Jul 2017

University of Victoria (UVic)

Victoria, BC - Canada

Jan 2014 – Apr 2015

LANGUAGES

Portuguese

Mother Tongue

English

Fluent

Python

Working Knowledge

C/C++

Working Knowledge

Go

Intermediate Knowledge

Rust

Basic Knowledge

