

MATEUS M. FURQUIM MENDONÇA

Machine Learning and Software Engineer

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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

Jul 2025 – Present

Amaris | AB InBev

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

Jan 2021 – Jul 2025

DevGrid | Voltaware

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

Nov 2019 – Aug 2020

Autotrac

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

Jan 2019 – Nov 2019

IBM

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

Nov 2015 – Jul 2016

LADES at UnB

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

Jan 2015 – Apr 2015

CanAssist at UVic

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

Nov 2021 – Dez 2022

Udacity

Online

BEng. Software Engineering

Mar 2011 – Jul 2017

Universidade de Brasilia (UnB)


Brasilia, DF - Brazil


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