

# MATEUS M. FURQUIM MENDONÇA

## Machine Learning and Software Engineer

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📍 Brazil

## PROFESSIONAL SUMMARY

Highly skilled software engineer with over 9 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

### Back-end Developer

DevGrid

📅 Jan 2021 – Present

📍 United Kingdom (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

📍 Brasília, 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

📍 Brasília, 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

📍 Brasília, 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

📅 Nov 2015 – Jul 2016

📍 Brasília, DF - Brazil

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

- 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

📍 Online

📅 Nov 2021 – Dez 2022

### BEng. Software Engineering

Universidade de Brasília (UnB)

📍 Brasília, 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