

# MATEUS M. FURQUIM MENDONÇA

## Machine Learning and Software Engineer

@mfurquimdev@gmail.com    mfurquimdev    in/mfurquimdev    mfurquim.dev

 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

### Tech Lead

DevGrid | Voltaware

 Nov 2024 – Present


 United Kingdom (Remote)


Re-designed core service to be aligned with MLOps best practices

- > Review several MR, totalling more than a hundred thousand lines of code, guaranteing consistency and code quality.
- > Iteratively improved domain models following **Domain Driven Design** approach, increasing efficiency in delivering new features.

### Back-end Developer

DevGrid | Voltaware

 Jan 2021 – Nov 2024


 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

 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

 Brasilia, DF - Brazil

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

 Online

 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  
 English

Mother Tongue  
Fluent

</> Python  
</> C/C++  
</> Go  
</> Rust

Working Knowledge  
Working Knowledge  
Intermediate Knowledge  
Basic Knowledge

 Linux

 Bash

 Regex

 GitFlow

 CI/CD

 Docker

 RESTful

 SQL / NoSQL