

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

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

 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

 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.


- > 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

Mother Tongue

 English

Fluent

 Python

Working Knowledge

 C/C++

Working Knowledge

 Go

Intermediate Knowledge

 Rust

Basic Knowledge