MATEUS M. FURQUIM MENDONCA

Machine Learning and Software Engineer

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PROFESSIONAL SUMMARY

Data-driven software engineer with more than five years of experience focusing on back-end development. Dedicated to fostering team growth and innovation through effective mentoring and collaboration. Strong problem-solving skills and a passion for delivering high-quality software solutions.

WORK EXPERIENCE

Machine Learning Engineer
🗓 Jan 2021 – Present

DevGrid
📍 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.

› Effectively addressed daylight saving time and timezone issues by **encapsulating** it within a **dataclass**, ensuring simplified maintenance.

Embedded Software Developer
🗓 Nov 2019 – Aug 2020

Autotrac
📍 Brasilia, DF - Brazil

Maintained the 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.

› Created **ansible books** to automate the configuration of Linux environment for the development of a low-level system.

DevOps and SRE 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 by utilizing the **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 – Jan 2017

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.

› Accomplished a low resource consumption of **Raspberry Pi** by rotating log using the **C/C++** language and the **Qt** Framework.

› Created an entire configuration menu using the **Asterisk** framework with Text to Speech capabilities to be used via a phone call to the Raspberry Pi.

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
⇄ Exchange Student

LANGUAGES

💬 Portuguese	Mother Tongue
💬 English	Fluent
</> Python	Working Knowledge
</> C/C++	Working Knowledge
</> Rust	Basic Knowledge

🐧 Linux   >_ Bash   .* Regex   ⑂ GitFlow   ⚙ CI/CD   🐳 Docker   RESTful   SQL/NoSQL   Made with LaTeX