

# Mateus Toledo

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## Summary

Software development engineer with 2 years of experience in modeling systems with business processes automatization (BPM) and data modeling (ECM). Experienced in projects (supported by Agile Methodologies) that apply to the construction, mining, and financial industries.

Experience in academic study on Risk Analysis, Optimization, and Decision Making Under Conditions of uncertainty (Master's degree in Computer Science focused in Data Science).

Technology skills:

- Programming languages: JavaScript, TypeScript, Python, Visual Basic (VBA), C.
- Front End: HTML, CSS, Next.js, React.js.
- Back End: Node.js, Express.js, BPM, ECM, SYDLE ONE, HTTP/REST, and SOAP APIs.
- Database: ElasticSearch, NoSQL (MongoDB), and SQL (SQL Server).
- Cloud service: Amazon Web Services (AWS), Heroku, Vercel.
- Test: Jest
- DevOps: Ansible.
- Versioning: Git and Gitlab.
- Project management: SYDLE ONE.
- ERP System: SAP, TOTVS.
- Visualization data: Tableau, Power BI, Dashboards.
- Methods: TDD (Test-driven development), BDD (Behavior Driven Development), DDD (Domain-Driven Design), Continuous Refactoring, SOLID principals, and Clean Architecture.

Career highlights:

- I have given training to more than 1000 people, with a 95% approval rate.
- Conceptualized solutions involving data modeling to optimize the use of the storage database.
- Development of the modules responsible for Financial Guarantees and Risk Analysis in an integrated core banking solution to a financial institution.
- Development of REST API with external systems and the automation process to e-commerce.

## Experience



### Software Engineer

#### SYDLE

Jan 2021 - Present (1 year 1 month +)

SYDLE is a technology company that has an enterprise digital platform (SaaS / PaaS) SYDLE ONE whose purpose is to perform integration with other systems through data modeling (ECM) and business process modeling (BPM).

Responsible for the creation and presentation of technical cases to strategic customers by proof of concept (POC). The main challenge is to persuade those potential customers that using SYDLE ONE they will be able to perform a digital transformation in their business. Also, leading a team with strategies to improve the learning of SYDLE ONE users.

Main achievements:

- Creation of solutions involving data modeling to optimize the use of the database in a project developed for a company of insurance (Porto Seguro).
- Development of the modules responsible for Financial Guarantees and Risk Analysis in an integrated core banking solution to manage credit operations and automate financial activities for FINEP Financial Institution.
- Development of REST integrations with external systems and the automation process for e-commerce MadeiraMadeira. The challenge was to perform an integration between systems and use business process modeling (BPM) to track the progress of the process.
- I have given training to more than 1000 people, with a 95% approval rate.

Technologies:

- Programming language: JavaScript.
- Front End: JavaScript, HTML, CSS, Analytics, and Dashboards.
- Back End: JavaScript, BPM, ECM, SYDLE ONE, HTTP/REST, and SOAP integrations with various systems.
- Database: ElasticSearch, MongoDB, SQL Server.
- DevOps: Ansible.
- Versioning: Git and Gitlab.
- Project management: Agile software development.



## **Machine Learning Engineer**

Omdena

Jan 2022 - Present (1 month +)

Omdena is a platform helping mission-driven organizations and startups build impactful AI solutions through global collaboration.

Project: Digitizing Floor Plan Layouts using Artificial Intelligence.

The Problem:

- To recognize floor plan elements in a layout requires manual labor to draw the different elements over the image. The goal of this project is to improve the efficiency of this manual effort by automatically identifying the relevant types of objects present in the image by means of an AI solution using state-of-the-art deep learning and computer vision approaches.

The Goals:

- An AI Pipeline that can accurately identify the perimeter of the different types of areas present in the image.
- A system that can accurately identify different types of elements (walls, railings, etc)



## **Software Engineer**

SYDLE

Jan 2020 - Dec 2020 (1 year)

Software Developer on the project at customer Agis, a construction group company. Responsible for the modeling data (ECM) and business process (BPM) for automation of the Sourcing and Tender fields.

The main challenge was to integrate all the systems (Protheus/TOTVS ERP System, SQL Servers, etc)

with sync/async requisitions and maintain the user experience better as possible to perform their digital transformation.

Also, responsible for the creation of technical cases for strategic customers by proof of concept (POC). The main challenge is to persuade those potential customers that using SYDLE ONE they will be able to perform a digital transformation in their business.

Technologies:

- Programming language: JavaScript.
- Front End: JavaScript, HTML, CSS, Analytics, and Dashboards.
- Back End: JavaScript, BPM (Business Process Modeling), ECM (Enterprise Content Management), SYDLE ONE, HTTP/REST integrations with various systems.
- Database: ElasticSearch, SQL Server.
- DevOps: Ansible.
- Versioning: Git and Gitlab.
- Project management: Agile software development.



## **Sourcing Engineer**

### **GE Power Conversion**

Nov 2018 - Dec 2019 (1 year 2 months)

General Electric Power Conversion (GEPC) is the world leader in energy, offers technology, solutions, and services for the entire energy chain, from generation to consumption.

Responsible for negotiation and development of suppliers, performing contractual analysis as the delivery time, payment terms, quality, and warranty. Follow-up with Sales, Quality, Project Management, and Engineering teams. Managed the Key Performance Indicators (KPIs) of the sector and weekly developed strategies together with the manager to improve the indicators.

Main achievements:

- Participation in the business process redesign of GE Power Conversion;
- Participation in the digital transformation that occurred in the KPIs of the Supply sector, a project that reduced 5 Man-Hours/week and automated the generation of the indicators (KPIs), making them available in real-time.

Technologies:

- Programming languages: Visual Basic (VBA), Java.
- ERP System: SAP
- BPM (Bizagi)
- Office Package (Word, Powerpoint, Office Mail, Excel)
- ETL Process: Talend and SQL Databases.



## **Technical Process and Product Engineer**

### **Eletro Hertz**

Jan 2018 - Oct 2018 (10 months)

EletroHertz it's a manufacturing electrical whip to hundreds of customers across Brazil, included multinational's companies with high standards as General Electric (GE) Healthcare, Philco, Phillips, Toyota, and Stellantis.

Modeling business process to manufacturing electrical whip. Leading the update and control of process documentation (work instruction). Technical support to Purchase, Production Planning and Control (PPC), and Factory teams. Driving technical analysis for customer acquisition.

Technologies:

- Programming language: Visual Basic (VBA);
- Operation local system;
- Microsoft Office (Word, Excel - VBA, Powerpoint).



## **Process Engineer**

Jabil

May 2016 - Apr 2017 (1 year)

Jabil Inc. is an American worldwide manufacturing services company. Jabil has 100 plants in 30 countries, and 260,000 employees worldwide. The Brazilian site operates focused on the electronic manufacturing market.

Manufacturing process developer of printed circuit boards (PCB) for SMT Reflow Oven and Critical Repair areas. The main challenge is to create and optimize the process to improve the quality and cost reduction. Also, works as a laboratory analyst executing the analysis failure on PCBs.

Main achievements:

- Development of the process to critical repair field at an external site (Jabil Valinhos - São Paulo/ Brazil).
- Created a semiautomatic station for repairing printed circuit boards (PCB). Cost reduction of 120k BRL to 5k BRL (95% reduction).

Technologies:

- Programming language: C, Python, Visual Basic (VBA);
- Microsoft Office (Powerpoint, Excel, Word, Sharepoint);
- Lean Six Sigma tools.



## **Manufacturing Engineer**

Jabil

May 2015 - Apr 2016 (1 year)

Jabil Inc. is an American worldwide manufacturing services company. Jabil has 100 plants in 30 countries, and 260,000 employees worldwide. The Brazilian site operates focused on the electronic manufacturing market.

Manufacturing process developer of printed circuit boards (PCB) for SMT Reflow Oven and Critical Repair areas. Draw and creation of specific tools used in PBC manufacturing. The main challenge is to create and optimize the process to improve the quality and cost reduction.

Main achievements:

- Creation of the PCB Control System used for temperature optimization in Rework Stations and SMT Reflow Oven.

Technologies:

- Programming language: C, Visual Basic (VBA);

- Microsoft Office (Powerpoint, Excel, Word, Sharepoint);
- AutoCAD
- Lean Six Sigma tools.

## Education



### **Pontifícia Universidade Católica de Minas Gerais**

Master's degree, Optimization and Decision-Making Under Conditions of Uncertainty (NFQ 9)

Jan 2021 - Jan 2023

Master's in Computer Science (specialized in Data Science, focused in Optimization and Decision-Making Under Conditions of Uncertainty). The Pontifical Catholic University of Minas Gerais is recognized as the largest Catholic university in the world and the best private university in Brazil.

Core modules:

- Algorithms: design and analysis
- Software engineering
- Theory of computation
- Data visualization: theory and applications with R, Python, Power BI, and Tableau.
- Optimization with linear, non-linear, discrete, and dynamic programming.
- Multicriteria (multiobjective and multiattribute) decision-making under conditions of uncertainty.
- Current final project focus on an optimization of the complex supply chain in the mining industry.



### **Pontifícia Universidade Católica de Minas Gerais**

Bachelor's degree, Electrical and Electronics Engineering (NFQ 8)

Jan 2016 - Dec 2020

The Pontifical Catholic University of Minas Gerais is recognized as the largest Catholic university in the world and the best private university in Brazil.

- Final project about the contracts in the free energy market and the strategic approach for quantitative risk analysis.



### **Universidade Federal de Viçosa**

Technical, Electrical and Electronics Engineering

Jan 2012 - Jan 2015

The Universidade Federal de Viçosa (UFV) is the 16th best university in Latin America (LATAM).

## Licenses & Certifications



**Bronze Lean Six Sigma - Jabil**

B2017-01528



**AWS Machine Learning - Udacity**

## Skills

JavaScript • Analytical Skills • Software Development • Lean Manufacturing • 5S • Agile Methodologies • Analytics • Business Process Management • Enterprise Content Management • Machine Learning

## Honors & Awards



### **1st prize in VI Edition of Pre-Acceleration Program (PAN) PUC Minas - Fumsoft - Fumsoft**

Oct 2019

The Business Pre-Acceleration Program (PAN) encourages entrepreneurship and offers support to all those interested in validating an idea, developing a business plan, and a minimum viable product (MVP).

At the end of the program, a competition was held between the startups and as the winner, I received three months of mentoring at Acelera MGTI a Fumsoft Accelerator Program, with strategies for understanding the market, product, and customers.