

Mariane Mendes Medeiros

São José dos Campos, São Paulo, Brazil

mariane.mm@gmail.com – (12) 982584616 – [linkedin.com/in/marianemm](https://www.linkedin.com/in/marianemm)

I am a Computer Engineer with master's degree in Computational Mechanics Engineering. As student, I have worked for 5 years in Scientific Initiation projects concerning computer sciences, robotics and automation. In my professional experience, I have worked for 9 years sharing the roles of Software Solution Architect / Software Developer of 'Digital Solutions for Engineering and Manufacturing' area, former 'Industrial Automation' team.

While waiting for the next work opportunity, I am dedicated full time to learn new skills and refresh others, focusing mainly (but not only) in courses of Cloud Computing, more specifically AWS, Docker Containerization, and DevOps culture and tools (latter with estimation to finish in March this year).

I am a person with good communication skills, strong aptitude for details and continuous curiosity and will to learn, loving to research and exchange knowledge with colleagues. In my former working team, I used to be the person designated for the tasks where no internal knowledge was available, due to my analytical skills and interest in learning new things. At same time that this posed a constant challenge due to short time spans to learn and solve problems, it made me a hands-on person, needing few directions to perform my tasks and deliver results.

Work Experience



Software Solution Architect / Software Developer

EMBRAER

Digital Solutions for Engineering and Manufacturing Department

June 2011 - July 2020

Top Project

Integration of Manufacturing Process Planning software to Shop Floor Manufacturing Execution System and ERP (June 2011 – May 2013)

- Took part as product owner and administrator of Manufacturing 3D Process Planning system. Played role in specification of integrations, conciliating requirements of four different teams: product / manufacturing / quality engineers and operation technicians. Developed code to customize the Manufacturing 3D Process Planning system. Assumed ownership of main architectural components of integration, supporting production operation and users.

Main responsibilities in deployment of 3D Digital Manufacturing solutions for Aerospace Industry:

- Understand business needs and optimization opportunities regarding digital solutions, leveraging higher levels of system automation inside the company while following industry standards for 3D technologies (mostly Dassault Systèmes) and aircraft lifecycle regulations;
- Collect functional requirements from engineers in respect of the business needs, conciliating their requirements to the ones of other areas such as Shop Floor Operation;
- Define computer-based solutions to solve engineering needs, delivering studies of viability and risk analysis for possible software solutions;
- Assess market solutions evaluating technical aspects for internalization of 3rd-party software into company's working environment ensuring it fits company's needs;
- Define integration strategies of 3rd-party software to the company's applications and software/hardware infrastructure, in partnership with Embraer's IT team;

- Create software specification and define quality assurance plans for deliveries;
- Define strategies to support end-users (training, ticket attendance, support's knowledge base management).

Main responsibilities in software development:

- Liaise process definition and software development teams;
- Establish planning and prioritization of activities for development team, reporting progress to managers;
- Ensure team's strong orientation to aerospace industry requirements for software development (aircraft data integrity, traceability, lifecycle management);
- Develop software (VBScript / VBA, C++) and 3rd-party software customization (VBScript / VBA);
- Maintain software developed by others (Python, Java, C#);
- Ensure best programming practices and code quality, with strong orientation to data integrity and performance;
- Define and develop interfaces for system integration, planning strategies to improve downstream data flow;
- Ensure synergy of developed systems with the current software/hardware infrastructure, considering data security policies and company's compliance regulations;
- Provide testing plans, maintenance procedures and lifecycle strategies for software/customizations;
- Provide low- and high-level documentation as Technical Writer;
- Provide training and support for end users.

Education



Universidade Estadual de Campinas

Computational Mechanics Department
Master's Degree, Mechanical Engineering
2010 - 2013

Final Paper: "Simultaneous optimization of structure and controller to vibration minimization via Genetic Algorithms"
(<http://repositorio.unicamp.br/jspui/handle/REPOSIP/264939>)

Description: The work presents an optimization method where a beam structure and the controller parameters are optimized simultaneously aiming to diminish negative influence between both dynamics (two other optimization approaches are presented by means of comparison). For all three cases, the optimization problem was addressed using Genetic Algorithms and the results were simulated through MATLAB programming.

Main subjects of the program: Genetic Algorithms; Finite Element Analysis; Dynamic Systems Control.



FURG Universidade Federal do Rio Grande

Bachelor's degree, Computer Engineering
2005 - 2009

Final paper: "Graphical Interface for Dynamic Systems Study"

Description: The work broaches the development of graphic interfaces to study dynamical systems and basic concepts of control theory. Designed to be used as didactic tool, the C++/MATLAB software prototype exploits the required characteristics to waken the student's interest in the subject, offering the possibility to accomplish some simple dynamical simulations.

Top Project: Multi-robot architecture for dynamic systems applications (FURGBOL robot's soccer team).

Description: Development of an architecture for autonomous low cost robots capable of cooperate and play soccer (F180 category - Robocup.Org).

Contribution to the project: research/development on computer vision techniques (C++).

Academic production: <http://lattes.cnpq.br/7272241501780235>

Main subjects of the program: Theory of Computation, Computer Architecture, Software Engineering, Programming Languages, Data Structures, Operating Systems, Computer Networking, Databases, Compilers, Analysis of Algorithms, Computer Graphics, Numerical Methods, Artificial Intelligence, Robotics.

FURG Universidade Federal do Rio Grande - Colégio Técnico Industrial Prof Mário Alquati

Technical Education in Software Development
2000 – 2002

Main subjects of the program: Programming Techniques, Data Structures, Software Engineering, Operating Systems, Statistics. Exposure to intensive logical thinking and practical code programming during entire program.

Courses

Cloud Treinamentos

July 2020 – December 2020

- AWS: Backup Deviceless with AWS (10h)
- AWS: Introduction to AWS Cloud + AWS High Availability Bootcamp (20h)
- AWS: Specialization Program (120h)

AWS Infrastructure Overview. High availability concepts. Theory and hands-on over AWS Services such as VPC, EC2, S3, RDS, IAM, Route53, CloudFront, CloudFormation, CodeDeploy, SNS, SES, Lambda and CloudWatch.

Cloud Treinamentos

November 2020 – CURRENT (closure estimated to March 2021)

- DevOps: Specialization Program (120h)

DevOps culture and tools, such as Docker, Jenkins, Zabbix, Grafana, Nexus, Ansible, Terraform, Kubernetes and AWS ECS / ECR / EKS.

Skills

Strong analytical thinking • Aptitude for details • Hands-on • Communication • Organization • Will for continuous learning

Software development life cycle • GIT • VBA / VBScript • C++ • Basic Python • RDBMS and SQL (MySQL, SQLServer, PostgreSQL, Oracle) • Batch / PowerShell scripting • Code optimization • Code debugging • AWS Services • Docker (Compose, Swarm) • Atlassian ALM tools (JIRA, Confluence) • Scrum framework • Lean Tools • Troubleshooting • Documentation