Mariane Mendes Medeiros

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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 and automation. In my professional experience, I have worked for 9 years as both Software Developer Engineer and Solution Architect at Aeronautical Industry, providing and maintaining Digital Factory solutions for manufacturing processes.

Currently in a career break, I am taking time to renew my skills over things that I did not have the opportunity to work with in my last position. I am dedicated full time to refresh/learn new skills, focusing mainly (but not only) in courses of AWS Cloud Computing, Containerization, DevOps culture/tools, and Software Architecture. My GitHub profile, although recently created, has been constantly updated to demonstrate some practice over knowledge acquired.

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



EMBRAER S.A. - Digital Solutions for Engineering and Manufacturing Department

(June 2011 - July 2020) Software Solution Architect / Software Developer Engineer

Top Project: Integration of Manufacturing Process Planning software to Shop Floor Manufacturing Execution System and ERP (2011 – 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.

Responsibilities as Solution Architect in deployment of 3D Digital Manufacturing solutions:

- 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 and manage lifecycle of 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 company'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);
- Be a stakeholder for Digital Manufacturing solutions inside the company.

Responsibilities as Software Developer Engineer:

- Liaise process definition and software development teams:
- Establish planning and prioritization of activities for development team, reporting progress to managers;
- Define and manage lifecycle of non-functional requirements for software development;
- Develop 3rd-party software customization (mainly VBScript/VBA, some C++/Python) and automation software, with strong orientation to data integrity and performance;
- Define and develop interfaces for system integration, respecting compatibility and improving reuse of data;
- Troubleshoot 3rd-party software problems and interact with R&D of responsible companies to solve them;
- Ensure synergy of developed/customized systems with the current SW/HW infrastructure, considering data security policies and company's compliance regulations;
- Provide testing plans, maintenance procedures and lifecycle strategies for software delivered.
- Provide low- and high-level documentation as Technical Writer.

Education



Universidade Estadual de Campinas

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

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.



FURG Universidade Federal do Rio Grande

(2005 – 2009) Bachelor's degree, Computer Engineering

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 system 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.cnpg.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

(2000 – 2002) Technical Education in Software Development

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

Courses



Cloud Treinamentos - AWS Cloud (160h)

September 2020 – December 2020

Introduction to AWS Cloud (10h) • AWS High Availability Bootcamp (10h) • AWS Backup Deviceless (10h) • AWS Cloud Experience (10h) • AWS Specialization Program (120h)

AWS Infrastructure Overview. High availability concepts. Theory and hands-on over services such as (but not only) VPC, EC2, S3, RDS, IAM, Route53, CloudFront, CloudFormation, Code Commit/Deploy/Build, SNS, SES, Lambda, Systems Manager, CloudWatch.

Cloud Treinamentos - DevOps Specialization Program (120h)

November 2020 – CURRENT (closure estimated to June 2021)

DevOps culture and tools over AWS Services, using Docker, Jenkins, Zabbix, Grafana, Nexus, Ansible, Terraform, Kubernetes and AWS ECS / ECR / EKS.

Instituto de Gestão em Tecnologia da Informação - Software Architecture (148h)

February 2021 - May 2021

Fundamentals. Architectural requirements. Design Patterns and architectural standards. Main software architectures.

Skills

Strong analytical thinking • Aptitude for details • Hands-on • Communication • Organization • Will for continuous learning ••• SDLC • GIT • VBA / VBScript • C++ • Basic Python • RDBMS and SQL (MySQL, SQL Server, PostgreSQL, Oracle) • Programming/Scripting • Code optimization • Code debugging • AWS Services • Atlassian ALM tools (JIRA, Confluence) ••• Scrum framework • Lean Tools • Troubleshooting • Documentation

Languages

Portuguese: native proficiency

English: full professional proficiency