Alan Braz

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Summary

Senior Research Developer in IBM Research acting as technical leader and software engineer in the productization of research projects for cloud architecture (Kubernetes and Red Hat OpenShift), automating the entire development process with practices (Agile) and tools (DevOps), aiming open source offers or new products. Coding experience in most common back-end languages and front-end frameworks.

Extensive knowledge and practical experience leading technical and design discussions with executives as well as architecting and building highly scalable, cloud-native complex applications for hybrid-cloud. Active open-source contributor and maintainer of OSDU and two IBM tools.

Previously functioned as Developer and Architect at IBM Consulting, then later migrated to IBM Research as a Software Engineer on BigData projects with social media data. I also worked internationally in Yorktown Heights/ NY developing tools for Data Scientists and mining software repositories.

Hold a Master's in Computer Science researching about "Developing Reliable Component-based Software with Agile Methods". Instructor and graduate courses teacher of Agile, DevOps, Data Mining and Cloud Computing, summing more than 800 hours of class. Certified ScrumMaster and Enterprise Architect for Java. Published 14 academic papers and awarded 10 patents. Also holds 21 badges at https://www.credly.com/users/alanbraz/ badges

Experience

Senior Research Software Engineer, IBM Research Brazil
IBM
Jul 2019 - Present (3 years +)
Leading developers and software engineers on transitioning research projects to products, services of open-source offerings.
- Currently working with Cloud infrastructure automation using Terraform at IBM Cloud and AWS for Accelerated Discovery Platform project.
- Software Engineering community of practices global leader running "office-hours" like technical sessions (dev-hours) weekly from 2020. The sessions are a mix of hands-on demos and round tables.
- Global OSDU technical leader from IBM responsible for the technical implementation of all APIs in Java's SpringBoot running at IBM Cloud and Red Hat OpenShift. IBM maintainer of the open-source cloud providers implementation as part of a multi-cloud team in collaboration with Microsoft, Amazon and Google. The IBM hybrid cloud implementation resulted in a long-term partnership deal with Schlumberger and the develop of a new IBM Product: IBM Open Data for Industries for IBM Cloud Pak for Data.
- Engineering leader and knowledge/technical transition manager of a 4-year Research project Seismic Interpretation Advisor (SIA) transformation into an IBM product GeoScience Advisor (GSA) which is an AI-based advisor to enhance seismic interpretation in the oil and gas exploration area. The project took 18 months including the entire hiring process and formation of development team at IBM Consulting with 15 members.

Research Software Engineer, IBM Research AI (USA)
IBM

Jan 2017 - Jun 2019 (2 years 6 months)
Global IBMer program assignment at IBM TJ Watson Research Center at Yorktown Heights, NY.
Working primarily in the front-end (Angular, React and WebComponents) and Cloud native architecture
of a cognitive computing platform. Also part of the DevOps@Research initiative.
- AI Engineering team studying Data Scientist workflow and tools creating a tool to track model training
datasets and hyper parameters. This research prototype (built in Python, Go, Node.js, Angular.js) was
presented to the product team and inspired new features of the Watson Studio.
- Mine Software Repositories for AI models and extract metadata from README.md text and source-
code. Resulted in a paper published at MSR conference (https://2020.msrconf.org/details/msr-2020-
papers/9/AIMMX-Artificial-Intelligence-Model-Metadata-Extractor) and open-sourced the AIMMX tool
(https://github.com/ibm/aimmx).
- Instructor of 5 workshops (~150 participants) and consultant of Agile methods and DevOps tools
playing the role of DevOps champion.

Software Engineering Researcher, Social Data Analytics, IBM Research Brazil
IBM

Feb 2013 - Dec 2016 (3 years 11 months)
Led Application Architectures and Software Engineering practices and tools across research projects.
Main research interests Agile Methodologies and Practices, Community-driven Collaboration, Analytics
Visualizations, Social Networks and Mobile development.
- From 2013 and 2014 worked as the lead developer of the Ei! Real-time Sentiment Analysis of
Microblogging Online Social Network Streams project which we analyzed tweets in Portuguese during
the FIFA World Cup soccer games. Responsible for designing, implementing and monitoring the entire
BigData infrastructure and APIs to provide real-time data to 2 TV broadcast apps during the matches.
This project resulted in 2 Research Division Awards (RDA) https://researcher.watson.ibm.com/
researcher/view_group.php?id=4921
- Later I worked in an internal tool for HR to generate insights about employee's morale using the data
from posts of an internal social media platform to try to predict employee attrition.

IT Specialist, Application Architect, IBM Consulting
IBM

Nov 2005 - Feb 2013 (7 years 4 months)
JavaEE Application Architect and Developer, ScrumMaster, Agile Coach, Agile teacher, technical leader
of Social Software and communities
- Have worked from 2005 to 2008 as application (World Wide Expense Reimbursement) production
support in JavaEE environment using WebSphere Application Server (WAS) over AIX.
- From 2007 and 2010 acted as the IBM Brazil internal Java Community Leader. - Also worked as a
Object-oriented programming, Java, JavaEE, Rational Application Developer (RAD), Rational Unified
Process (RUP), Agile, Scrum and Rational Team Concert (RTC) instructor and teacher inside and
outside IBM.
- From 2010 to 2012 worked as Java Architect and Agile Coach for IBM Global Account. Also worked
as Collaboration and Knowledge Sharing leader of GBS Smarter Application Development and
Management (ADM) (former Generation Open - GenO) program. Focused on the use and extension of
IBM Connections via REST API, developing reports using Java and WebSphere sMash applications.

Intern Java/WebSphere Developer, IBM Consulting (Global Business Services)
IBM

Aug 2005 - Nov 2005 (4 months)

Training in Java, Rational Application Developer and WebSphere Application Server products. Assigned in a "shadow" program to follow a senior developer.

Intern in Java/Web Programmig, International projects
CI&T

Feb 2005 - Aug 2005 (7 months)

Worked on 2 3-month projects: Apple (Java, WebObjects, PostgreSQL) and HP (C# .NET, MSSQL Server)

Education

Universidade Estadual de Campinas

Master's degree, Computer Software Engineering

2009 - 2013

Thesis theme: "Developing Reliable Component-based Software with Agile Methods"

Universidade Estadual de Campinas

Bachelor, Computer Science

2002 - 2005

Licenses & Certifications

Certified ScrumMaster (CSM) - Scrum Alliance

Sun Certified Enterprise Architect for the Java Platform, Enterprise Edition 5 - Sun Microsystems

310-062

Skills

Cloud Computing • OpenShift • Software Engineering • Software Development • Kubernetes • Test Driven Development • Agile Methodologies • Data Mining • Python (Programming Language) • Full-Stack Development

Honors & Awards

Research Division Award (RDA) - IBM Research

Dec 2014

Evolution of the Ei! High-Volume Social Media Sentiment Analyses to run during 2014 FIFA World Cup games (64 total).