Rafael S. **Fayan**

SOFTWARE ENGINEER · CLOUD DEVELOPER · DATA SCIENTIST

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Summary

Software Engineer with 6+ years of working experience specialized in backend development. Skilled at creating and managing scalable services with all major cloud providers using Go, Python and Java. Familiar with DevOps practices and several monitoring, testing and automation tools. Interested in solving problems in the fields of Distributed Systems, Machine Learning and Internet of Things.

Work Experience

Coalition   *Vancouver, Canada*

SOFTWARE ENGINEER   *Feb. 2023 - Nov. 2024*

- Maintained underwriting rules and workflows for services and lambdas hosted on AWS and written in Python and Go
- Created an integration with Salesforce Financial Services, notifying analysts of new insurance claims in real-time
- Developed a new insurance pricing model for customers in Australia, enabling the company to expand into a new market
- Improved service monitoring via Datadog, Sentry, and PagerDuty dashboards and workflows, allowing for faster incident responses
- Automated manual deployments via CI/CD pipelines using GitHub Actions and Terraform, improving developer velocity and experience

Hash   *Remote, Brazil*

SENIOR SOFTWARE ENGINEER   *Oct. 2021 - Oct. 2022*

- Built and deployed risk management and fraud detection systems in Go and Python on a GKE cluster using Helm and Istio for orchestration
- Developed a microservice-oriented application for managing customer information within the company via gRPC and Google Pub/Sub
- Overhauled a rules engine application to allow rule creation with configurable steps and execution triggers for domain specific validations
- Designed and implemented a third party integration for multi-factor authentication using face recognition and document validation

Daitan   *Campinas, Brazil*

SOFTWARE ENGINEER   *Mar. 2021 - Oct. 2021*

- Development of StarlingX, a cloud infrastructure platform for edge computing built on top of OpenStack and Kubernetes
- Collaboration with the open source community on the OpenStack project
- Test development and automation using Python/Pytest, Ansible and Jenkins
- Java backend development of a logistics platform on AWS with SOAP/REST APIs using Wildfly, Apache Struts, Spring, and Oracle DBMS

Logicalis   *São Paulo, Brazil*

SOFTWARE ENGINEER   *Oct. 2020 - Mar. 2021*

- Cloud environment setup for production scale with Azure Kubernetes Service (AKS), Helm and Kong
- Backend development with Python and Java for high performance services using Spring and FastAPI
- Development and deployment of Machine Learning services for OCR and object detection
- Authorization and authentication flows using OpenID Connect and OAuth with Keycloak

JUNIOR SOFTWARE ENGINEER   *Jan. 2019 - Oct. 2020*

- Worked in R&D projects and proof of concepts for new market demands in machine learning and computer vision
- Created and maintained a microservice-oriented API in Flask for facial recognition that integrates with different cloud service providers

SOFTWARE ENGINEER INTERN   *Jan. 2018 - Jan. 2019*

- Worked on several projects focused on Machine Learning and Internet of Things using Azure and Logicalis IoT platform Eugenio
- Developed a dashboard for sentiment analysis on comments made in App Store and Google Play using Microsoft PowerBI and Azure LUIS

Skills

Programming	Python, Go, Java, NodeJs, C++, R
Cloud Providers	Azure, Amazon Web Services, Google Cloud Platform
Web Frameworks	Flask, FastAPI, Django, Gin, Spring
Machine Learning	Tensorflow, PyTorch, scikit-learn, Azure Machine Learning, Amazon SageMaker
Databases	PostgreSQL, MySQL, MongoDB, CosmosDB, DynamoDB, Redis, Elasticsearch
Miscellaneous	Kubernetes, Docker, RabbitMQ, Kafka, Terraform, Datadog, Jenkins, gRPC, REST, Git, Linux
Languages	Portuguese, English

Education

State University of Campinas *Campinas, Brazil*

Extension Course on Complex Data Mining *Aug. 2020 - Jan. 2021*

- Extension program on Data Science and related fields like Data Mining and Analysis, Big Data, Artificial Intelligence and Machine Learning
- Final project: development of convolutional neural networks for diagnosing patients infected with COVID-19 though images of CT scans

University of Limerick *Limerick, Ireland*

Internet of Things Summer School *Jul. 2017 - Aug. 2017*

- Hands-on classes with theory and practice learning in different knowledge areas related Internet of Things (IoT) development
- Final project: smart lock for bicycles with GPS and accelerometer sensors and data processing on Bluemix cloud platform

University of São Paulo *São Paulo, Brazil*

Bachelor's degree in Computer Engineering *Mar. 2014 - Dec. 2018*

- Obtained a certificate of proficiency in Embedded Systems for obtaining high scores in courses related to the field
- Attended a Summer Course on Linear Control Systems with students from Texas A&M University on campus
- Thesis: gait cycle analysis of accelerometer signals for fall risk assessment on elderly people using neural networks and classification models

Certifications, Courses & Awards

Certifications

Oct. 2021 **Microsoft Certified: Azure Fundamentals**, Microsoft

Oct. 2021 **Microsoft Certified: Azure Data Fundamentals**, Microsoft

Sep. 2021 **Microsoft Certified: Azure AI Fundamentals**, Microsoft

Feb. 2019 **Exam 774: Perform Cloud Data Science with Azure Machine Learning**, Microsoft

Courses

Dec. 2020 **Advanced Architecting on AWS (AWSAA)**, Fast Lane US

Dec. 2020 **Big Data on AWS (BDAWS)**, Fast Lane US

May 2018 **Embedded Linux**, Embedded Labworks

May 2018 **Yocto Project**, Embedded Labworks

Awards

Jul. 2021 **Certification of Recognition**, Daitan Group

Apr. 2017 **Third Place - Be an Icon Competition**, Siena Idea & CeMEAI

Extracurricular Activity

ADA (Junior Enterprise for Projects in Computer Engineering) *São Paulo, Brazil*

Founder & Vice President *Sep. 2016 - Oct. 2017*

- Outlined the group's strategic planing and managed the team members onboarding, technical growth and allocation
- Developed a music player with dynamic LED illumination based on sound frequency using ARM micro controllers

SEMEAR (Mechatronics and Robotics Group) *São Paulo, Brazil*

Project Manager *Apr. 2015 - Nov. 2016*

- Managed projects roadmap and team members' activities
- Built an access control system using RFID and Arduino devices with a stepper motor attached on mechanical locks
- Implemented an integration software for comunicating embedded devices to Tellit's IoT platform DeviceWise using MQTT

Projects and Contributions

Openstack

Contributor *Mar. 2021 - Oct. 2021*

- OpenStack is a free, open source cloud computing platform deployed as infrastructure-as-a-service in public and private clouds
- Contributed with bugfixes and feature implementation for releases Wallaby and Xena