

# Rafael S. Fayan

SOFTWARE ENGINEER · CLOUD DEVELOPER · DATA SCIENTIST

Campinas, São Paulo, Brazil

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## Summary

Senior Software Engineer with 4+ years of working experience specialized on 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

### 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 customers' 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 a cloud native platform for edge computing based on the open source projects StarlingX and OpenStack using Kubernetes, Docker, Armada, Helm, MariaDB and RabbitMQ
- Test development and automation using Python/Pytest, Ansible and Jenkins
- Collaboration with the open source community on the StarlingX/OpenStack projects
- 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

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

# Education

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## State University of Campinas

EXTENSION COURSE ON COMPLEX DATA MINING

*Campinas, Brazil*

*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 through images of CT scans

## University of Limerick

INTERNET OF THINGS SUMMER SCHOOL

*Limerick, Ireland*

*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

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

*São Paulo, Brazil*

*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

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## 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

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## ADA (Junior Enterprise for Projects in Computer Engineering)

FOUNDER & VICE PRESIDENT

*São Paulo, Brazil*

*Sep. 2016 - Oct. 2017*

- Outlined the group's strategic planning 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)

PROJECT MANAGER

*São Paulo, Brazil*

*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 communicating embedded devices to Tellit's IoT platform DeviceWise using MQTT

# Projects and Contributions

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## 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