

# Rafael Fayan

Campinas, São Paulo, Brazil



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## Summary

Bachelor's Degree in Computer Engineering at University of São Paulo, São Carlos, SP.

Very interested in Backend/Cloud Development, Internet of Things and Machine Learning.

Likes to learn and work with new and emerging technologies whenever possible.

Currently working as a Senior Software Engineer at Hash, with a focus on backend development for risk management and fraud detection on financial and payment services.

## Experience



### Senior Software Engineer

Hash

Oct 2021 - Present (9 months +)

- Risk management and fraud detection systems development
- Design and implementation of a third party integration for MFA using face recognition and document validation
- Development of a micro-service oriented application for managing customer's information to comply with KYC policies for financial services
- Development of a rule engine application created with extensibility in mind, allowing rules with configurable steps and execution triggers to be added for domain related validations



### System Development Specialist

Daitan Group

Mar 2021 - Oct 2021 (8 months)

- 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



### Software Engineer

Logicalis Brasil

Oct 2020 - Mar 2021 (6 months)

- 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 facial recognition
- Authorization and authentication flows using OpenID Connect and OAuth with Keycloak



### Junior Software Engineer

## Logicalis Brasil

Jan 2019 - Oct 2020 (1 year 10 months)

- Worked in R&D studies and proof of concepts for new market demands in machine learning and computer vision
- Created and maintained a production-ready API for biometric facial recognition integrating different service providers in a microservice architecture



## Software Engineer Intern

Logicalis Brasil

Mar 2018 - Jan 2019 (11 months)

- Worked in several small projects focused on Machine Learning and Internet of Things using Microsoft 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



## Vice President

ADA - Projetos em Engenharia de Computação

Sep 2016 - Oct 2017 (1 year 2 months)

- Junior enterprise focused on applying computer engineering knowledge in real-world projects for companies and organizations
- Responsible for the group's strategic planning, technical growth and internal management of the associates
- Development of a music player with dynamic LED illumination based on sound frequency using ARM micro controllers
- Weekly training in electronics and embedded programming



## Project Director

SAEComp

Sep 2015 - Aug 2017 (2 years)

- Represents the computer engineer students interests before the university's government
- Responsible for the group's project management using PMBOK and Scrum and Microsoft Excel
- Training of new members and overseeing planning and execution of academic events and activities



## Project Manager

Grupo SEMEAR - EESC/USP

Apr 2015 - Nov 2016 (1 year 8 months)

- Extracurricular group focused on mechatronics engineering projects and competitions
- Responsible for managing projects schedules and technical documentation
- Development of an access control system using RFID technology and Arduino
- Development of an algorithm for MQTT communication between embedded devices and Tellit's IoT platform DeviceWise

## Education



**Universidade de São Paulo**

Bacharelado, Engenharia de Computação

Feb 2014 - Dec 2018

- Embedded Systems proficiency certificate
- Summer course on Linear Control Systems with Texas A&M University
- Undergraduate thesis: machine learning analysis of accelerometer signals captured by gait analysis on elderly people for fall risk assessment using neural networks and classification models



## **Universidade Estadual de Campinas**

### **Curso de Extensão, Mineração de Dados Complexos**

Jul 2020 - Dec 2020

- 5 months extension program focused on Data Science, including topics like Data Mining, Information Retrieval, Data Analysis, Big Data, Artificial Intelligence and Machine Learning
- Final project: development and comparison of classifier models using convolutional neural networks for diagnosing patients infected with COVID-19 through images of chest tomography scans



## **University of Limerick**

### **Internet of Things Summer School**

Jul 2017 - Jul 2017

- Hands-on classes with theory and practice learning in different knowledge areas related Internet of Things (IoT) development
- Seminars and talks with industry professionals about IoT concepts, main challenges and real-world applications
- Company visits at Dell EMC and Johnson Controls
- Final project: smart lock for bicycles using GPS and accelerometer sensors, MQTT protocol and IBM's cloud platform Bluemix with Node-RED event-driven programming

## **Licenses & Certifications**



### **Ênfase em Sistemas Embarcados - Universidade de São Paulo**



### **Linux Embarcado - Embedded Labworks**



### **Yocto Project - Embedded Labworks**



### **Exam 774: Perform Cloud Data Science with Azure Machine Learning - Microsoft**



### **Nvidia Tesla Technical Curriculum (2020) - NVIDIA**



### **Big Data on AWS (BDAWS) - Fast Lane US**



### **Advanced Architecting on AWS (AWSAA) - Fast Lane US**



### **Mineração de Dados Complexos - Universidade Estadual de Campinas**

 **Microsoft Certified: Azure AI Fundamentals** - Microsoft

 **Microsoft Certified: Azure Fundamentals** - Microsoft

 **Microsoft Certified: Azure Data Fundamentals** - Microsoft

## **Skills**

Python • Go (Programming Language) • Kubernetes • Microsoft Azure • Software Architecture • Software Development • Machine Learning • Computer Vision • Cloud Computing • Data Science

## **Honors & Awards**



**Third Place - Be an Icon Competition** - Siena Idea e CeMEAI

Apr 2017

- Competition between groups of students at USP for developing a product or solution using Beacon technology
- Third place award for planning and implementing a smart monitoring system for public transportation using data collected through beacon devices