

PAULO ALEXANDRE CANILHO

Senior DevOps Engineer

Engineer passionate about everything-as-code.

(+41) 76 595 9761 | paulo@canilho.net | canilho.net | gitlab.com/pcanilho

SKILLS

- **Automation:** Golang k8s operators, Terraform+Terragrunt, Jenkins+Groovy, Ansible, GitLab CI/CD, HashiCorp Vault, Puppet, VMWare, Packer and Docker.
- **Programming languages:** Golang, Python and Java+Groovy and general-usage Linux scripting.

EXPERIENCE

Senior Devops Engineer:

Nextthink (Feb 2020 – current)

- Responsible for the whole CI/CD architecture, design, implementation and company onboarding at Nextthink. This service was built from the ground-up based on Jenkins+Groovy, Helm SDK, Terraform+Terragrunt and release manifests based on Yaml. I am currently working on a new version based on Tekton CI, ArgoCD, Golang custom operators and much more.
- Responsible for several core business services built in Golang: WebSocket MiTM proxy, CMDB/VSphere manager, Jenkins's monitoring, Prometheus + Jira integrations.
- Service owner for the Okta SSO deployment via Terraform and custom providers – upstream Okta provider contributor.
- Responsible & tech-lead for several company-wide foundation services based on Terraform modules, Ansible, Packer, Jenkins / Groovy CI/CD automation for product releases and deployment of VMs..

Full-Stack Software Engineer:

CERN (Jan 2018 – Feb 2020)

- Responsible for the management and deployment of HTCondor batch workers in CloudStack & OpenStack using CI/CD automation IaC – HNSciCloud project.
- Responsible for the Full-Stack development of an accounting system for HTCondor in GoLang, Vue.JS, Python and Jupyter data analysis.
- Main contributor to the load balancer client developed using GoLang.
- Contributor to CERN's machine-learning project for Elasticsearch using Tensorflow & Keras.

Software Engineer:

Clear Returns Ltd. (Apr 2016 – Nov 2016)

- Lead Java developer for REST full-stack development using ODATA standards for e-commerce system integration. Responsible for the extraction-transformation-load process for handling big-data ingestion and processing using Redshift SQL.
- Responsible for the DevOps of internal process automation involving S3 and Redshift integration.
- Responsible for the security measures implementation at all stages of the development.

Computer Engineer:

CERN (Jun 2014 – Jan 2016)

- System integration of a mobile monitoring solution with CERN's Swisscom provider network, including SNMP alarms setup and management queries using MSSQL.
- Creation of two mobile applications for Android for real-time monitoring system over the hardware components such as the linear accelerator detectors.
- Server-side implementation using Java for data management and network capabilities.

EDUCATION**MSc in Software Engineering with Distinction (GPA 3.9/4):**

Heriot-Watt University, Edinburgh, United-Kingdom (Sep 2016 – Oct 2017)

SIMP system (MSc research project) for monitoring of the encryption algorithm used in 2G, 3G, 4G and WiFi networks. This is a multi-modular system consisting of an Android application, AWS backend services and Node JS dashboard.

BSc in Telecommunications and Computer Engineering:

University of Lisbon in Portugal (Sep 2011 – Oct 2014)

Research Grant:

Microsoft PT – Adetti IUL (Jun 2013 – Jan 2015)

- Common LISP interpretation engine integration with Java's Swing libraries for the construction of a LISP graphical interface and ultimately an IDE.
- Shape-grammars' algorithms implementation in both common LISP and Java for artificial intelligence and machine learning data processing.

PUBLICATIONS*Concurrent adaptive load balancing at CERN*

CERN @ CHEP 2018

DOI: 10.1051/epjconf/201921408028

Co-Authors: P. Saiz (CERN), I. Reguero (CERN)

Achieving metric oriented load balancing

CERN @ CHEP 2019

URL: <https://indico.cern.ch/event/773049/contributions/3473842/>

Co-Authors: P. Saiz (CERN), I. Reguero (CERN)

LANGUAGES

Portuguese (Native), English (Fluent), French (Intermediate)