DAVID APARICIO

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International Driver Licence

Work Experience

2019 Current   DataOps, Hortonworks datalake, Debezium, Kafka, migrate Mesos Marathon to Kubernetes
Migration of bare-metal infra. to Public Cloud: IAC, CI&CD, K8s, automation, observability
CIO Technical architect volunteer since 2023, +25 Conference Speaker like DevoxxFR22/23
OVHcloud, Lyon, France | [HDP, Go, K8s, Helm, Marathon, Grafana, OpenStack, Ansible, CDS]

2017-2019   DevSecOps, BigData MapR deployment platform on hybrid clouds with CI/CD workflows
DevOpsAcademy Training creation for people in reconversion (self-learning & on-site)
Amadeus/Altran, Nice, France | [Hadoop, MariaDB, Docker, OpenStack, Ansible, Puppet, Jenkins]

2014 Jan-July   Java Dev, USB link Android/Linux, Datepicker/Undo functions for the MIT App Inventor
Facebook Open Academy, Menlo Park, USA | [Python, Java, JS, Android, Bash, GWT, GAE]

2013-2014   IoT Dev, Resilient Distributed IoT platform for energy consumption & meeting rooms (MRBS)
Eldorado Research Institute, Campinas, Brazil | [NodeJS,MQTT,Redis,MongoDB,Hadoop,Python]

2012-2013   Researcher Internship, Study of OS parameters impact on Transactional Memory simulation
Design a Geographical DB for bird sounds storage | *[Java, PostgreSQL, PostGIS, Jenkins/JUnit]*
Facebook Hackathon 2013 & 2014 (Honorable Mention), *São Paulo, Brazil*
Laboratory of Distributed Systems/Laboratory of Information Systems - Campinas, Brazil

2005–2011   5 Summer jobs: PHP Full-stack for Industrial fleet supervision, touchscreens CANBus, ERP
H-T-F, Méru, France | [PHP, Javascript, Python]

Academic Record

2015–2016   PHD FELLOWSHIP Practical and verifiable secure multi-party computation for decentralized
collaborative systems *[Java/Vert.X, Docker, Kubernetes, GKE, Stanford NLP, Sock.JS]*
Auto-scaling real-time sentiment analysis of **1.78 Billion** tweets Trump-Clinton debates
AICCSA16 Reviewer | WWW2017 *Perth/Australia* | 6th/7th BIU Winter School *Tel Aviv/Israel*
LIRIS CNRS, INSA Lyon, France

2008-2014   MSc Computer Engineering of INSA DE LYON *France* & UNICAMP *Campinas, Brazil*

Accomplishments

2024 Enix Kubernetes Advanced, Operators & tools: Helm/Kustomize/YTT/Flux/ArgoCD (M3/M4/M5)
2022 Go Advanced training, eBPF+Istio Foundation (Solo.io), GCP Core Infra+Big Data & ML (GCP100B)
2018 RedHat Automation with Ansible DO407, MapR Cluster Administration ADM2000
23/24 Vice-President Tech&Wine/Cloud Alpes' Organizer, Best Student 2015 Award Cap Magellan (Paris)
Microsoft Student Ambassador (10-12) SysAdmin at DSI-INSA (10-15) Imagine Cup 07 (IA French finalist)

Skills

FLUENT: English, Portuguese, French

BASICS: Spanish

CODE: Go, Python (ML/Django), Rust, JS (TS/Node.js), Java (Vert.X/J2EE), PHP, C++, Shell
AWS/GCP/Azure/OVH/Clever | RedPanda/Kafka | HTML5/CSS3 | SQL/NoSQL

Mission breakdown

OVHcloud
Design & GitOps deployment of the entire infrastructure, applications, services, gateways of multiple environments, from Mesos Marathon to Kubernetes, in zero-downtime migration.
Development of multiple backends with oTel for internal use, including API forwarders.
Umbrella Helm chart to deploy the entire software ecosystem (35+ microservices).
Individual contributor of the Go application making API calls to our different backends to centralize data, carry out the necessary aggregations and alert the on-call team if necessary.
Individual contributor of the Go inventory tool using OVHcloud API for Legacy discovery.
Source code for these tools available: github.com/davidaparicio/[ambari-to-opsgenie|occi
Debezium Kubernetes operator to monitor, act and manage the ingestion agent lifecycle.
Data workflow optimization with DataScience team (reducing from a week to 15min).
Individual contributor of the Python monitoring for the real-time data ingestion, by checking that agents are running smoothly, verifying this against the KPIs, and if not, proceeding with service recovery and carrying out routine recovery operations. If after 3 unsuccessful restarts, call the Opsgenie API for on-call with a detailed report on the situation.
Creation of two astonishment reports with prioritized improvement areas when I arrived: K8s policies PSP/PSA, resources comsumption, CI/CD/GitOps and operators weaknesses.
Participation as speaker in meetups/conferences (39) to enhance employer branding.
CIO Technical architect volunteer and EMEA Startup mentor since 2023.
Internal evangelization on the DevSecOps method, the importance of putting security at the very start of a project, and making developers aware of this crucial subject (Security-Left).
Migration of a datalake for 3K+ employees (+330TB of data, +42K tables, 85 data projects).

Amadeus
Contribution on the K8s operator AmadeusITGroup/Kubernetes-Kafka-Connect-Operator.
Individual contributor of the Kerberos backup/restore Linux Daemon, fully customizable and battle-tested with Chaos Monkey where archives are stored on control plane nodes.
Security by design, taking into account of a golden CMDB (single source of truth).
Proof of Concept on a ready-to-use tool for the Data Analysts with JupyterLab/Kafka/Spark.
Crash&Burn (ephemeral env.) on the DEV, backup at 10pm, disk wipe at 11pm, master branch redeployment from scratch at 12pm, unit/integration/E2E tests at 2am, restore from backup at 4am. If something doesn't work in the morning, it means a backup oversight.
Usage of Kubernetes CSR API to retrieve/rotate keys and deposit secrets in the ACS stack (Consul KV) to facilitate deployment in pet mode with the Puppet agent (Legacy operation).
Participating in and leading Software Craftmanship workshops & community (SCC).
Migration of a datalake into Kubernetes (OpenShift) for 19K+ employees with urbanization /security requirements & Terraform/ACS (+25PB, 200 nodes, 10K CPU cores, 65TB RAM).

LIRIS
Multi-cloud project created to put into practice SMPC (Secure Multiparty Computation), TOR (Onion Routing) as privacy preservation mechanisms (Zero-trust) for the thesis.
The Java application was used during the 2016 U.S. Presidential Debates by measuring in real time, all the tweets on the Twitter API: theme & sentiment analysis towards a candidate.
During the second debate, in the space of 48 hours, the service processed 1.78 billion tweets, representing more than 15GB, spread across AWS/GCP/Azure/Heroku (with auto-scaling).
Kubernetes 1.7 (May 2017) and the first tests of Ubernetes (K8s Federation in multi-cloud environment like skupper.io or Cilium) for high-availability, to take advantage of different cloud vendor features, or to use both on-prem and public clouds.

Inst.Eldorado
Management an innovative team (fifteen developers and designers), as project manager, in R&D hub, on the Internet of Things (IoT) with concrete achievements (intelligent meeting rooms, personalized air conditioning temperature based on occupancy) and participation in the implementation of target architecture and Scrum methodology.