Álvaro Fernández

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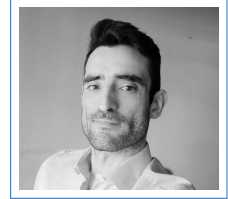
Experience

2022–present **DevOps Engineer - Independent Contractor**, *cLabs Inc.*, San Francisco, USA.

2022–2022 **Platform Engineer - Independent Contractor**, *Keyko GmbH*, Baar, Switzerland.
- Operate and maintain the Keyko.io CELO blockchain validator as well as set up the monitoring stack based on Grafana Cloud.
- Install and manage the Keyko.io deployments based on Kubernetes (GKE), establish a GitOps approach for Keyko.io deployments using ArgoCD.
- Plan and automatize the Helm charts lifecycle at Keyko.io: development, testing and publishing through GitHub Actions and GCP Artifact Registry.
- Administer the Keyko.io cloud infrastructure (AWS, GCP) and Google Workspace.
- Configure the CI/CD technologies at Keyko.io (Github Actions, DockerHub).
- Deploy, configure and maintain the monitoring stack based on Prometheus, Alertmanager and Grafana in Kubernetes.

2020–2022 **Platform Engineer**, *Empathy.co*, Gijón, Spain.
Manage the Empathy.co platform based on Kubernetes (EKS, GKE), the cloud infrastructure (AWS, GCP) through Terraform, and several CI/CD technologies (Github Actions, ArgoCD, Jenkins). Deploy and configure the monitoring and logging stacks (Prometheus, Alertmanager, Grafana, Fluent, Elasticsearch/Loki) in Kubernetes. Work on FinOps to analyze, optimize and bring visibility and accountability to the cloud costs at Empathy.co.

2018–2020 **DevOps and Software Engineer**, *StratioBD*, Pozuelo de Alarcón, Spain.
Develop the PaaS (DC/OS - Mesos based) installation tool (Python and Ansible), covering technologies such as Vault, Etcd, Zookeeper, Consul, Prometheus or Grafana.

2017–2018 **Support Technician**, *StratioBD*, Pozuelo de Alarcón, Spain.
Support and integration of StratioBD PaaS based on DC/OS (Mesos).

2012–2016 **Teaching Assistant**, *Norwegian University of Science and Technology (NTNU)*, Trondheim, Norway.
25% of my Ph.D consisted of a teaching assistant position in courses mainly related to networking (architectures, performance and dependability).

Education

2012–2017 **Ph.D in Telematics**, *Norwegian University of Science and Technology (NTNU)*, Trondheim, Norway.
Thesis title: Modelling and Analyzing Cost-Effective Dependability in Passive Optical Networks.
Link to diploma. Link to defence presentation. Link to abstract.

2006–2012 **Telecommunications Engineering (M.Sc.)**, *University of Valladolid (UVa)*, Valladolid, Spain.

Extraordinary End-of-Degree Award ("Premio extraordinario Fin de Carrera" in Spanish).

Link to diploma.

Certifications

Feb. 2021 Hashicorp Certified: Terraform Associate. Expires Feb. 2023. Link to credential.

Mar. 2021 Certified Kubernetes Application Developer - CKAD. Expires Mar. 2024. Link to credential.

Apr. 2021 AWS Certified Cloud Practitioner. Expires Jul. 2024. Link to credential.

Jun. 2021 Google Cloud Associate Cloud Engineer. Expires Jun. 2023. Link to credential.

Jul. 2021 AWS Certified Solutions Architect - Associate. Expires Jul. 2024. Link to credential.

Nov. 2021 Elasticsearch Certified Engineer. Expires Nov. 2023. Link to credential.

Feb. 2022 MongoDB Certified DBA Associate (C100DBA). No expiration. Link to credential.

Apr. 2022 Certified Kubernetes Administrator - CKA. Expires Apr. 2025. Link to credential.

Conferences

Apr. 2022 WTF is SRE - Cloud FinOps and Sustainability on Kubernetes.
Ramiro Álvarez Fernández, César González González and Álvaro Fernández Fernández.
Link to talk video.

May 2022 Cloud Native Rejekts - Cloud FinOps and Sustainability on Kubernetes.
Ramiro Álvarez Fernández, César González González and Álvaro Fernández Fernández.
Link to talk video.

Languages

Spanish Mother Tongue   English Advanced

Selected Publications

Some publications resulting from my research work. A full list of my publications can be found at my LinkedIn profile. Pre-print copies can be provided upon request.

Journal Á. Fernández and N. Stol, "Economic, dissatisfaction and reputation risks of hardware and software failures in PONs", IEEE/ACM Transactions on Networking, 2016. Link to publication.

Á. Fernández and N. Stol, "CAPEX and OPEX simulation study of cost-efficient protection mechanisms in passive optical networks", Optical Switching and Networking, 2015. Link to publication.

Conference Á. Fernández and N. Stol, "Managing software failures and capacity assignment to control interval availability in PONs", 8th International Workshop on Resilient Networks Design and Modeling, Sweden, 2016. Link to publication.