Lucas Pelegrín

SRE, Cloud Engineer & DevOps Philosopher

Lucas Pelegrín Caparrós

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Aptitudes

Constant learner who likes to get dirty and do not hesitate to take accountability of the tasks. I love to work feeling the team belonging like the same way I love to make team building. I work guided by the passion I feel, I commit to results and I lead thanks to the errors I have made in the past and learned afterwards.

Experience

Roche, DevOps engineer
August 2019 - now a days ,SANT CUGAT (BARCELONA)

To help development and overseeing of code releases and manage the infrastructure that's needed to support software code in AWS cloud environments. Help provisioning required resources, select an appropriate deployment model, direct the testing protocol to validate release and monitor performance after release. Tasks include preparing test data, analyzing results, troubleshooting problems and communicating issues back to the devops team. My task is to oversee all projects to maintain and to improve the platform of Roche.

We are managing and administering an AWS platform that contains a multiregion account in Europe & EE.UU which have medical solutions in a highly regulated environment. Although most of the solutions are deployed using EKS (AWS native Kubernetes) we are using 75% of the AWS resources catalog. Devops team is responsible for all operations and we aim to interface all operations through an automatism either terraform, cloudformation, ansible by using jenkins as an integration tool.

Apart from the daily operations, I was assigned responsible for design & to implement the roadmap of the continuous improvements including changes in the system architecture, monitoring system and error reporting system. Examples: to migrate from ad-hoc kubernetes installed in EC2 to EKS, to integrate EKS with ElasticSearch & Prometheus with Kibana & Grafana, to implement a reporting system based on key metrics of the solutions together with a reporting system.

All the work including meetings, documentation, coding and daily conversation is done in english.

Altran innovación SL, DevOps engineer Consultant

March 2018 - July 2019, SANTIGA (BARBERA DEL VALLES, BARCELONA)

Computer engineer consultant working for Aqualogy Business Software SA client which belong to SUEZ group. My main task was to industrialize all services to Cloud platforms using technologies such as: Docker, Kubernetes, Ansible, Terraform, Jenkins in the Azure Cloud Platform. I've done many other tasks like Cloud administration, DBA support, Cloud architecture solutions, software architecture solutions, Infrastructure deployment and in house infrastructure maintenance & monitoring as well.

Working here I have achieved to successfully deploy a full integration and production system based on an hybrid Cloud and On Premise solution by using Kubernetes as a main platform to deploy containerized monolithic software. Refining automatitions of all operation activities as part of the CI & CD. Lastly I was a member of the client's internal group known as "core team", we were responsables to lead the technology topics of their key projects. We were responsables of talking with Stakeholders in the case of need, solving technicians' doubts, broadcasting the technical knowledgement and to define the standards in order to ramp up the level & quality of key projects.

Pegueroles SCP, Developer

October 2017 - Februrary 2018, SABADELL (BARCELONA)

There were two main projects where I was involved. First developing Bank backend solutions using cobol lenguaje. Second. develop and maintain several solutions as a **fullstack** developer using mostly python's Django framework.

Totemcat S.A, Mobile developer

June 2017 - August 2017, MADRID

Freelance iOS apps software developer for the Totemcat S.L company at which I was working remotely. Using AGILE methods the work was followed weekly by the project manager who guided me in the development of a small application that took three months to develop.

-gap year-,

October 2016 - May 2017

Gap year I used to relax and put everything in order. Traveling all around Europe. I stood 5 months in Austria as a construction worker and learning German in the meantime.

Helipistes S.L, Full stack developer & cloud system engineer

June 2016 - September 2016, ULLASTRELL (BARCELONA)

Flight operator in the command helicopter of the 2016 catalonia's fire department forest fire campaign. As a result of my final degree thesis and my prior job, this project was also the opportunity to **bring the fire simulation system I had entirely developed for me to a production environment** by demonstrating its viability in an alpha test project. The project included many partnerships members: the catalonia fire department who will test the viability of the system, the Helipistas

company who puts its helicopters in the forest fire campaign to test the system in a real scenario, the university research group as a simulation tuning advisor, the catalonia regional weather forecast department who putted the real time and forecasted meteorological data that feeded fire simulations.

The project was a system that could simulate forest fire in real time. A helicopter traced the fire front perimeter by tracking the GPS position. This track was captured in an **iOS application** that sended this information to a back-end server that processed this information coupled with the weather forecasted data in the forest fire location.

The backend used **elastic computing** (AWS ASG, EC2, Route54, SNI, ALB) to increase the processing resources capacity so by using parallel computation programmation a simulation solution could be delivered almost real time. The backend including the data flow transformations from the different data sources and the integration with the simulator interface was developed entirely using python. All results could be seen in either a web based interface frontend (python django + bootstrap) or an iOS application software. In the meantime I also had developed other iOS applications to enforce the services that the helicopter could provide during the flight.

The project was managed and lead by myself while I was programming all the necessary system components and to keep the momentum together with the rest of the project partners , it took me 8 months to develop the backends & cloud systems plus the integration with the rest of the data sources and 4 months to develop the web & ios frontend. I managed to successfully finish the project while I was finishing the last year degree. The result were evaluated with the highest mark possible.

Link of the project:
https://ddd.uab.cat/pub/tfg/2016/tfg_49569/TFG-15-16-Lucas_Pelegrin_v3-3.pdf

Autonomous University of Barcelona, System Engineer
February 2016 - June 2016, BELLATERRA (BARCELONA)

Hired by the university to develop a cloud based system in AWS that could simulate forest fires working side by side with the FIRE research group team in the architecture and operating department of the Computer Engineer School in the Autonomous University of Barcelona. I was working in this project while I was studying for the university. Thanks to this work i had posted an indexed publication as a member after making the experimentations that are written in the paper (Forest fire propagation prediction based on overlapping DDDAS forecasts, CCS 2015 International Conference On Computational Science). The project helped me for my future work in Helipistas S.L.

MIM Mantenimiento y Maquinaria, Industrial Engineer
June 2015 - December 2015, MADRID

Working developing and maintaining automatisms for the industry sector. Mainly programming SIEMENS PLCs hardware with a multidisciplinary team in the production of industrial products

Fire Department of Catalonia regional government of Spain (DGPEIS), Internship Trainee

February 2015 - June 2015, CERDANYOLA (BARCELONA)

Internship program with the collaboration of the FIRE research group in the architecture department and operating systems in the Engineer school of the Autonomous University of Barcelona (UAB). Work consisted to develop software solutions for the GIS database of the fire department.

Formation

Universitat Autònoma de Barcelona, Information Technologies

MES DEL 20XX-MES DEL 20XX, CIUDAD

Computer science with mention on systems and architectures. The mention is oriented in systems, HPC systems and a overview of the hardware system.

Achievements

- Pass the fireman exam in the Regional Catalonia Government for temporal summer seasons only.
- Indexed paper publication in the CCS 2015 International Conference On Computational Science.
  Link:
  https://www.sciencedirect.com/science/article/pii/S1877050915011023?via%3Dihub