Nicolás D. César

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Profile

A proactive GNU/Linux system administrator/programmer and creative problem solver.
Active programmer since childhood, has experience in several computer languages either as a
hobby, professionally or out of an academic interest.

Excellent communication skills in Spanish and English.

Skills

- Cloud platform tool creation, including AWS, GCP, Azure, Digital Ocean and others.
- Production ready and scalable deployments
- Very good TCP/IP knowledge, able to troubleshoot problems using low-level diagnostics tools
- Experience programming in over 10 computer languages, including Go, Python, PHP, Bash as well as some C, Java, Perl and less known ones.
- Network service design for corporate users. During the course of 14 years a wide range of sysadmin tasks, including scripting, virtualization solutions and cloud management.
- Experienced public speaker at Latin American FLOSS conferences. More than 90 speeches delivered on several topics, including Python,PHP, GNU Philosophy, and many others. This also includes experience at delivering courses for College level audience.
- Good interpersonal communication and soft skills.

Achievements

- Deploy, maintain and develop Genetic related pipelines that processed hundreds of terabytes of data, mostly sequenced DNA. Migrated production clusters sizes from ~500 to 1000 terabyte from AWS to GCP to Azure in order to save costs. Most migrations are expressed in weeks with uninterrupted workload executions. Some deployments under my management where ~3.5Petabytes.
- Maintenance of a 1500+ servers configuration with a automatic reprovision approach. Having a major challenge on providing high availability on the 40+ MySQL database servers instances.
- Develop, monitor and maintain a 80 GNU/Linux critical mission server architecture with Ganeti (a Xen based virtualization tool), then ported the experience to AWS
- *Build it Fast*'s Main developer. A LAMP (Linux-Apache-MySQL-PHP) application generation framework aimed at reducing the programmer's development time. It started as a hobby and became the core technology of all web application created by Lunix S.R.L.
- Developed a web administration interface for an IEEE802.11-based network covering 350 square km for an oil related company. This tool allows the user to make massive changes to more than 2000 nodes (most of them Access Points and remote serial/Ethernet gateways). The network handles mission-critical, revenue-generating data from fixed assets such as oil and gas wells, compressor stations, pipelines, fluid storage tanks and utility meters.
- Outlined and deployed a local newspaper's web scalability plan. Replaced a single Apache web server using PHP and MySQL with several servers used for content delivery (replaceable Apache servers) and separated storage servers. Before the project, the site had 130.000 unique visitors per day, which led to I/O bottleneck problems, it now handles 10 times the workload with scalability issues reviewed.
- Delivered courses within college activities and professional work to more than a thousand students in topic such as MySQL, GNU/Linux, PHP, Basic programming, etc.

Work Experience

Curii Corporation Jan 2020 – October 2021
Curii Corporation is committed to accelerate and develop biomedical and open standards. The company maintains and extends Arvados platform among other duties with open standards. I worked as a Backend Engineer extending Arvados, plus as a Senior Systems Engineer deploying and maintaining clusters.

Curoverse – Veritas Genetics May 2015 – December 2019
Curoverse was a startup later acquired by Veritas Genetics funded by George Church. I was part of the Engineering team as Senior Systems Engineer. My role involved deploying and managing part of the Release cycle of the Arvados platform. Cluster ranged from hundreds of Terabytes to a couple Petabytes with heavy multi-day I/O workloads. It can be operated in AWS, GCP, Azure and on-prem servers

DataXu August 2014 – May 2015
DataXu was fast growing software company specialized in real time marketing and machine learning. I'm part of the System Engineering team responsible for provisioning and monitoring a wide range of services, from physical server provisioning to specialized AWS products.

Free Software Foundation April 2012 – June 2014
FSF is a non-profit organization founded by Richard Stallman. I was part of the sysadmin team. My shared responsibility was to manage a Xen virtualized environment with six Dom0 and near a unique. As expected every box runs only Free Software.

Device Software Inc August 2011 – March 2012
Device scape is a large WiFi offload company in USA mobile market. There is a 200+ cloud instances infrastructure that serves few million mobile devices per day. My responsibility was to coordinate sysadmin work with a very hands-on approach.

Contact Point Solution LLC December 2010 – March 2012
Contact Point Solutions is a coaching and training dedicated company with a heavy VoIP background for it's services. My responsibility was a sysadmin-developer mixed role hybrid cloud/in-house infrastructure to ensure the availability of web-based systems and the supervision of the offshore Argentine team.

Universidad Nacional del Litoral (UNL) June 2008 – April 2011
UNL is one of the major Argentina's Universities, my main responsibility is the system administrators group's coordination. The group's main tasks are:
  • Installation, monitoring and maintenance of mission critical GNU/Linux based servers. Most of the infrastructure was virtualized using Xen.
  • Design and implementation of physical and logical TCP/IP infrastructure.
  • Security aspects like availability and data integrity are handle with many other smaller tasks like data backup and restore, monitoring, firewall design and others.

Lunix S.R.L. (Owner) 2000 – August 2007
Lunix S.R.L is a GNU/Linux solutions company operating in Santa Fe, Argentina. Its main customers are regional small and medium-sized organizations.
  • Designed and implemented solutions based on free software mid-sized organizations
  • Coordinated developers, both for in-house and offshore development.
  • Supported internal infrastructure and own Internet Linux servers.
  • Assisted commercial management in designing new products and services.

Formal Education

Universidad Tecnológica Nacional, Facultad Regional Santa Fe:
Ingeniero en Sistemas de Informacion / Software Engineer