Alan Verdugo
Software engineer

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Competences

Data analysis	Pandas, Matplotlib, Jupyter notebooks, Google Analytics
Programming	Python, Shell scripting, PowerBuilder
Databases	MySQL, DB2, PostgreSQL, MongoDB
Operating systems	GNU/Linux (Redhat, Centos, Debian, Ubuntu Server), AIX, Windows
Others	Docker, Git, Travis CI, OpenShift, Markdown, LaTeX, Cron, Jira, Hadoop, Agile methodologies

Professional experience

November 2018 – Present — Software engineer, IBM

- Designed, developed, tested and documented code for the migration of monolithic ETL processes into a continuously integrated DevSecOps pipeline based on RedHat's OpenShift.
- Implemented and improved coding standards' compliance, including PEP8, test coverage, security assessments and code complexity analysis.
- Designed and implemented the secrets-sharing strategy of all our applications with Hashicorp Vault.
- By implementing CI/CD tools, I incremented the development team's throughput while reducing the error rates and migrating from an IaaS architecture to a cloud and container-based architecture.
- Designed and implemented our monitoring strategy of all our applications with the use of New Relic.
- Our successful code builds required full PEP-8 compliance, unit test coverage (> 80%), and cyclomatic complexity validations, all this while adhering to IBM's strict security standards.
- Presented local and company-wide training sessions in topics like automation, monitoring, security, containers, documentation and development best practices.
- Member of IBM's core Python team in Mexico, designing and presenting courses, conferences and hackatons.
- Co-authored an IBM Redbook (refer to the publications section).

Python · OpenShift · FastAPI · GitHub · Docker · Pandas · Travis CI · Hashicorp Vault · DB2 · PostgreSQL · RHEL · Xenon · Bandit · New Relic · LogDNA

June 2018 – November 2018 — Software engineering team lead, Amdocs

- Led and mentored a development team across multiple geographies.
- Processed, analyzed and reported the data of a major telecommunications company.

Python · Spark · SQL · ETL · Cassandra · Qlikview

June 2014 – June 2018 — Software engineer, IBM

- Collected, processed, curated and reported all of the billing data for IBM's AppOps Team. By enhancing existing code and developing new programs, I automated the processes and increased the revenue of the team in thousands of dollars per month.

Python · SQL · ETL · GitHub · IBM Smart Cloud Cost Manager · IBM Tivoli Usage and Accounting Manager · DB2

April 2013 – June 2014 — System administrator, IBM

- Supporting, troubleshooting, installing, configuring, migrating and developing all kinds of software and servers. Specialized in the Unix platform and its variants (GNU/Linux, AIX, etc.)

RHEL · AIX · Websphere Application Server · Nagios

September 2012 – April 2013 — System administrator, Electronic Arts

- Launching, supporting, troubleshooting, and enhancing thousands of servers and applications in the cloud, used for videogame traffic and data processing for millions of concurrent users.

Debian · Python · MySQL · Nagios

November 2007 – September 2012 — Programmer analyst, AutoZone

- Troubleshooting, debugging, maintaining, developing and enhancing systems in a wide variety of programming languages and operating systems in a production environment for a Fortune 500 company.
- Received two *WITTDJR (What it takes to do the job right)* awards for delivering an excellent customer service and one *Extra Miller* award for *"going above and beyond the call of duty, exceeding expectations and consistently doing more than expected."*

PowerBuilder · SQL · C · Java · Perl · Bash · Jira · MySQL · Informix · PostgreSQL

Certifications

CompTIA Linux+	**Valid from:** Sept. 2016 **Verification code:** DQPR3E9HCDVE1WSN
LPIC-1	**Valid:** Sept. 2016 - Sept. 2021 **LPI ID:** LPI000368945 **Verification code:** pfbbjhavvj
Google Analytics Individual Qualification	**Valid:** Jan. 2018 - Jul. 2019

Coursework and training

MongoDB, Inc.	*MongoDB for developers*
IBM	*Big data foundations*
Wizeline academy	*DevOps crash course*
University of California at San Diego	*Python for data science*
Wizeline academy	*Portable Stream and Batch Processing with Apache Beam*
IBM	*Applied Data Science with Python*
Google	*Data Engineering on Google Cloud Platform Specialization*
IBM	*IBM Cloud Kubernetes Service*
IBM	*DevOps Essentials*

Projects

December 2021 – June 2022

Endurance mission, IBM

- The Endurance CubeSat mission is about making space accessible to everyone on this planet - In other words, democratizing access to Space. We leveraged IBM / RedHat technology to allow students worldwide to interact directly with a CubeSat in Low Earth Orbit - giving them the ability to use code to access data from various sensors, take pictures, perform calculations, and get the results back down to Earth via ground stations and the IBM Cloud.

Python · Raspberry Pi 4 · IBM Cloud

2020 – 2021

Gilbert (Educational open source mobile application), Independent

- Built a mobile application aimed at helping college students to learn about electricity and magnetism.
- Documented and published the entire application as free and open source software.

Python · Kivy

June 2016 – October 2016

Cognitive Concierge, IBM

- Our team trained and configured speech recognition patterns along with questions and answers in order to program a set of humanoid robots who could understand and answer natural language questions about IBM, Watson, cloud technologies, robotics and nearby locations.
- A fully-working demo was presented publicly during the *World of Watson* conference in Las Vegas.

SoftBank Robotics' Nao and Pepper humanoid robots · Watson · Natural-language processing · Speech recognition

Publications

Red Hat OpenShift V4.X and IBM Cloud Paks on IBM Power Systems (Volume 2)
http://www.redbooks.ibm.com/abstracts/sg248486.html?Open
ISBN-10: 0738459569
ISBN-13: 9780738459561

Implementing and Managing a High-performance Enterprise Infrastructure with Nutanix on IBM Power Systems
https://www.oreilly.com/library/view/implementing-and-managing/9780738458564/
ISBN-13: 9780738458564

Desarrollo de una aplicación educativa móvil para el aprendizaje de fundamentos de circuitos eléctricos
https://tinyurl.com/37t52s7b
ISSN: 1405-2172