# ALAN VERDUGO Software engineer

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# COMPETENCES

Data analysis Pandas, Numpy, Matplotlib, Scikit-learn, Jupyter notebooks, Google Analytics, Watson Analytics

Programming Python, Bash, Perl, PowerBuilder

Databases MySQL, DB2, MongoDB, Oracle Database, Informix, Microsoft SQL Server, PostgreSQL

Operating systems Linux (Redhat, Centos, Debian, Ubuntu Server), AIX, Windows

> Others Docker, Git, Markdown, ETFX, JSON, XML, CSV, VIM, 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.
- > Implemented and improved coding standards' compliance, including PEP8, test coverage, security assessments and code complexity analysis.
- > 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.
- > Our successful code builds required full PEP-8 compliance, unit test coverage, and cyclomatic complexity validations, all this while adhering to IBM's security standards.
- > Presented local and company-wide training sessions in topics like automation, monitoring, containers, documentation and development best practices.

Python 3 | GitHub | Docker | Pandas | Travis CI | Urban Code Deploy | DB2 | RHEL | Jira | ServiceNow | Sphinx Xenon Bandit New Relic

# 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 Kafka 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 | Git | 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.)

Linux 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.

Linux 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



CompTIA Linux+

Valid from: Sept. 2016 Verification code: DQPR3E9HCDVE1WSN

Valid: Sept. 2016 - Sept. 2021 LPI ID: LPI000368945 Verification code: pfbbjhavvj

Valid: Jan. 2018 - Jul. 2019 Google Analytics Individual Qualification

LPIC-1

LANGUAGES

**STRENGTHS** 

INTERESTS

English Spanish Japanese



- > Creative
- > Self-starter
- > Analytical
- > Responsible

- > Reading
- > Writing
- > Videogames
- > Programming

# Coursework and training

MongoDB, Inc. MongoDB for developers

> Big data foundations **IBM**

Wizeline academy DevOps crash course University of California at San Diego Python for data science

> Portable Stream and Batch Processing with Apache Beam Wizeline academy

IBM Applied Data Science with Python

Data Engineering on Google Cloud Platform Specialization Google

**IBM** IBM Cloud Kubernetes Service

DevOps Essentials IBM



# January 2017 October 2017

# Conferences' attendees live tracking and analysis, IBM

- > In less than a month, our team built a proof of concept of a solution to the registration of attendees in conferences, while also providing mobile applications and an RFID tracking system used to identify the attendees' participation in the venue.
- > Used the captured data to gain insights and create a dashboard using the Watson Analytics platform.
- > Created reports by cleaning and processing the raw data using Pandas and Matplotlib.
- > A fully-working demo was presented to IBM's global leadership during the Interconnect conference in Las Vegas.

Watson Analytics Python Pandas Matplotlib MySQL SQLite

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

January 2016 March 2016

# Hadoop Raspberry Pi Cluster, IBM

- > Built a fully-working 12-node Hadoop cluster with Raspberry Pies including setting up the environment in each node, testing it and presenting a demo to high management in order to demonstrate the feasibility of using Raspberries as an affordable cloud offering to entry-level clients.
- > Documented the entire process and published it on the IBM developerWorks site.

HDFS Raspberry Pi



# **PUBLICATIONS**

Implementing and Managing a High-performance Enterprise Infrastructure with Nutanix on IBM Power Systems https://www.redbooks.ibm.com/abstracts/sg248461.html?Open

# Building a Hadoop cluster with Raspberry Pi

https://developer.ibm.com/recipes/tutorials/building-a-hadoop-cluster-with-raspberry-pi/