# Alan Verdugo Software engineer

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github.com/alanverdugo





# **COMPETENCES**

Python, Bash, Perl, PowerBuilder Programming

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

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

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

> Others JSON, XML, ŁTFX, Git, Cron, Jira, CSV, VIM, Sublime, Agile Methodologies



## PROFESSIONAL EXPERIENCE

## June 2014 Present

## Software engineer, IBM

- > Single-handedly collected, processed, curated and reported the entirety of billing data for IBM's Development Support Team. By enhancing existing code and developing new programs, I automated and improved the processes and increased the internal revenue of the team in thousands of dollars per month.
- > Voluntarily participated actively in innovation projects in order to explore new areas of development, documenting insights and presenting results (Refer to the *Projects* section below).

Python | SQL | ETL | Git | Linux | AIX | IBM Smart Cloud Cost Manager | IBM Tivoli Usage and Accounting Manager | Bash | JSON DB2 XML SQLite

## 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 Bash

# 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 Cacti Chef Perforce

# 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.

PowerBuilder | SQL | C | Java | Perl | Bash | Javascript | Linux | AIX | Eclipse | Jira | Serena Dimensions | SVN MySQL DB2 Informix PostgreSQL Oracle Database



CompTIA Linux+ Valid from: September 2016 Verification code: DQPR3E9HCDVE1WSN

> LPIC-1 Valid from: September 2016 Valid to: September 2021 LPI ID:

> > LPI000368945 Verification code: pfbbjhavvj Valid from: January 2018 Valid to: July 2019

Google Analytics Individual Qualification

# LANGUAGES

English Spanish Japanese



# STRENGTHS

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

# Interests

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

### January 2017 October 2017

## Conferences' atendees 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 and movement around the event's 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 plotting with 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 ETL RFID Linux CSV SQLite

### June 2016 October 2016

#### Cognitive Concierge, IBM

- > By using IBM's Watson, 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 the conference.
- > 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 Text-to-speech | Speech-to-text | Linux | MySQL | Bluemix

### January 2016 March 2016

### Hadoop Raspberry Pi Cluster, IBM

- > I researched, analyzed and built a prototype to demonstrate the feasibility of using Raspberries as an affordable cloud offering to entry-level clients.
- > I 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.
- > Documented the entire process and published it on the IBM developerWorks site.

Hadoop | HDFS | Raspbian | Raspberry Pi | SSH

# August 2016 April 2018

#### Travel searcher, INDEPENDENT

- > By gathering and analyzing Google's travel data, I built a wrapper and notification system to inform me of affordable flights for destinations, prices and schedules I decided.
- > Published all the code and documentation in my github repository.

Python Google QPX API Linux Cron Git



### COURSEWORK AND TRAINING

Rice University Interactive programming in Python

> Stanford Introduction to mathematical thinking

> > IBM Hadoop foundations **IBM** Spark foundations

IBM Watson analytics

MongoDB, Inc. MongoDB for developers

> Wizeline DevOps crash course

University of California at San Diego Python for data science

> Portable Stream and Batch Processing with Apache Beam Wizeline

IBM Blockchain essentials IBM Big data foundations IBM Bluemix essentials

Google analytics for beginners Google Google Advanced Google analytics

Spatial Data Science: Algorithms and Applications by Rappi Wizeline