

ALAN VERDUGO

Software engineer

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COMPETENCES

Programming	Python, FastAPI, PyTest, Shell scripting,
Data analysis	Pandas, Matplotlib, Jupyter notebooks, Google Analytics
Databases	MySQL, DB2, PostgreSQL, MongoDB, SQLite
Security	WhiteSource/Mend, Hashicorp Vault, AppScan on Cloud
Others	Docker, Git, Travis CI, Sonarqube, GitHub Actions, OpenShift, Jira, Agile methodologies

PROFESSIONAL EXPERIENCE

November 2018 Present	Software engineer, IBM <ul style="list-style-type: none">As part of IBM's Voice of the Customer team, developed Python code to automate the consumption, processing and reporting of customer-related data in order to generate NPS insights.Led and mentored a team of 20 developers in order to build, maintain and improve applications which processed IBM's marketing data.Designed and implemented REST APIs for customer's data transmission.Monitored batch processes to protect data flows. Provided root cause analysis and fixes in case of failures.Designed and implemented microservices and utilities to optimize applications and eliminate code duplication.Analyzed code and dependencies looking for security vulnerabilities. Provided remediation strategies and implemented fixes.Designed and implemented our secrets-management strategy using Hashicorp Vault.Presented external and internal training sessions in topics like automation, monitoring, security, containers, documentation and development best practices. <div>PythonOpenShiftFastAPIGitHubDockerPandasTravis CIHashicorp VaultDB2PostgreSQLRHELJiraBanditNew RelicLogDNAS3 cloud storagePyTestJSON</div>
June 2018 November 2018	Software engineer, AMDOCS <ul style="list-style-type: none">Led and mentored a software development team across multiple geographies.Processed, analyzed and reported the data of a major telecommunications company. <div>PythonSparkSQLETLCCassandraQlikview</div>
June 2014 June 2018	Software engineer, IBM <ul style="list-style-type: none">Collected, processed, curated and reported all of the billing data for IBM's AppOps Team.Automated manual processes and increased the revenue of the team in thousands of dollars per month by enhancing existing code and developing new programs. <div>PythonSQLETLGitHubIBM Smart Cloud Cost ManagerIBM Tivoli Usage and Accounting ManagerDB2</div>
April 2013 June 2014	AIX/Linux system administrator, IBM <ul style="list-style-type: none">Deployed, configured, maintained and migrated IBM production applications and servers.Specialized in the Unix platform and its variants (GNU/Linux, AIX, etc.) <div>RHELAIWebSphere Application ServerNagios</div>
September 2012 April 2013	Linux system administrator, ELECTRONIC ARTS <ul style="list-style-type: none">Deployed, maintained and updated thousands of servers in the cloud, used for videogame traffic and data processing for millions of concurrent users. <div>DebianPythonMySQLNagios</div>
November 2007 September 2012	Programmer analyst, AUTOZONE <ul style="list-style-type: none">Troubleshooting, debugging, maintaining, developing and enhancing systems in a production environment for a retail Fortune 500 company.Received two <i>WITTDJR (What it takes to do the job right)</i> awards for delivering an excellent customer service and one <i>Extra Miller</i> award for "going above and beyond the call of duty, exceeding expectations and consistently doing more than expected." <div>PowerBuilderSQLCJavaPerlBashJiraMySQLInformixPostgreSQL</div>

CERTIFICATIONS

CompTIA Linux+ Valid from: Sept. 2016 Verification code: DQPR3E9HCDVE1WSN
LPIC-1 Valid: Sept. 2016 - Sept. 2021 LPI ID: LPI000368945 Verification code: [pfbbjhavj](#)

COURSEWORK AND TRAINING

Google	<i>Data Engineering on Google Cloud Platform Specialization</i>
IBM	<i>Think like a hacker</i>
IBM	<i>IBM DevSecOps Explorer - Security and Automation for DevOps</i>
MongoDB, Inc.	<i>MongoDB for developers</i>
University of California at San Diego	<i>Python for data science</i>
IBM	<i>Applied Data Science with Python</i>
IBM	<i>IBM Cloud Kubernetes Service</i>
IBM	<i>Open Source Contributor</i>
IBM	<i>IBM Mentor</i>
IBM	<i>IBM Recognized Teacher/Educator</i>
IBM	<i>IBM Cloud Garage Test-Driven Development (TDD)</i>
IBM	<i>IBM Cloud Private - Continuous Integration/Continuous Delivery Pipelines</i>
IBM	<i>Security Focal</i>
IBM	<i>Pen testing, incident response and forensics</i>
IBM	<i>Data Visualization Using Python</i>

PROJECTS

December 2021 June 2022	Endurance mission, IBM <ul style="list-style-type: none">Wrote code for the Endurance CubeSat mission, which allows students worldwide to interact with our CubeSat in Low Earth Orbit, so they could access data from sensors, take pictures, perform calculations, and get the data back to Earth via ground stations. <div>Python Raspberry Pi 4 IBM Cloud</div>
June 2016 October 2016	Cognitive Concierge, IBM <ul style="list-style-type: none">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 <i>World of Watson</i> conference in Las Vegas. <div>SoftBank Robotics' Nao and Pepper humanoid robots Watson Natural-language processing Speech recognition</div>

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-13: 9780738459561. ISBN-10: 0738459569.

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.

PATENTS

Authentication with infrared light for digital keys

Patent approved. Currently being processed by the United States Patent and Trademark Office.

Continuous user's IoT devices sensing for unusual authenticity detection on computer devices

Patent approved. Currently being processed by the United States Patent and Trademark Office.