Senior Python Data Engineer supporting Oracle, Teradata and Spark ETL Senior Python Data Engineer supporting Oracle, Teradata and Spark ETL Senior Python Data Engineer supporting Oracle, Teradata and Spark ETL - Cigna Berwyn, PA Authorized to work in the US for any employer

Work Experience Senior Python Data Engineer supporting Oracle, Teradata and Spark ETL Cigna February 2019 to Present * Building tools using Python Pandas library to support data validation prior to ETL between Oracle and Teradata. Supporting the movement of these tools to secure production environment using algorithms written in Python. Working on developing the validation as a service to be accessed via Postman. Negotiating security regarding viewing of production data. * Developing scripts to support data cleaning for address data received from Spectrum address validation tool. Unicode character removal was the biggest issue. * Writing Ansible scripts for dev deployment via Jenkins * Coding ETL from Apache Hive to Spark using Scala for Spark and advanced SQL to support data lake and data warehouse integration. * Supporting 360 view of Provider Data Senior Python Developer contracted to provide Django and Ansible support Library of Congress and Circadence July 2018 to February 2019 * Updated Django 1.11 application, using Python 3.5, connected to PostGRES database. Consumed API data from government site to provide SOLR documents consumed by front facing PHP site to provide data used by congress.gov. Used Python 3.6 "black" tool and flake8 for code validation prior to checkin to git. Unit tests were written using unittest and unittest.mock. * Developed Ansible scripts run from Docker containers for Django app. Django 1.11 app run using Python 3.6 within Docker container using Docker Compose was designed to kick off Ansible scripts used to provision virtual machines managed by VMWare vCenter. Ansible scripts were written according to current best practices. Senior Python Developer Omnicom Media Group August 2018 to September 2018 contracted to provide Django and VueJS support to multiple apps * Developed VueJS screens related to scoping tool used by media group for internal contract scoping. Developed code using Vagrant CentOS 7 box, running Node.js. Senior Python Developer Drakontas - Glenside, PA March 2018 to July 2018 contracted to provide Django support to the DragonForce app * Updated Django 1.11 application connected to PostGRES database. Modified code used as backend to mobile app used to track real time situation response

image data for police and military. Used Websockets, XMPP, Django Channels, Django signals on CentOS 7 to update backend for use in scaling system. Senior Python Developer United States Department of Agriculture November 2017 to February 2018 contracted to provide Django support to the FSIS Department * Updated Django 1.11 application connected to PostGRES database. Connected Django app to Elasticsearch for faster query processing. Developed front end using Django Forms, ModelForms, CreateView, FormView, Widgets, and Templates. Used JQuery and CSS3 to develop front end. GitLab was used to manage code and issues. Senior Python Developer Bank of America - Jersey City, NJ February 2017 to August 2017 contracted to provide Flask support for Devops work supporting private cloud development * Updated Flask application connected to MongoDB database. Built server instances used to provide JSON configuration information used by Ansible Playbooks to instantiate servers in private cloud. Used MongoDB command line interfaces to alter collections, validate user interface used to collect configuration information, validated data in Kibana (open source version of Splunk), and performed scripting in RHEL Linux using Bash. Git was used for source control. Senior Python Developer Wells Fargo November 2016 to January 2017 contracted to provide OpenStack software support to the Private Cloud Enablement group * Modifying Django application helping to connect new OpenStack instances to Wells Fargo management infrastructure. Branching and merging performed with Git. Puppet is used for deployment and standardization of infrastructure configuration. Development performed using localized RHEL Vagrant instances within VirtualBox on Windows, in Python 2.7. Senior Python Developer Billtrust - Lawrenceville, NJ August 2016 to November 2016 contracted to provide software support to help ease customer integration after a new merger, providing IronPython support, MySQL interface support, and user interface skill to ensure statements and invoices meet customer expectations * Developing XML lexing and parsing support for translating heterogeneous billing system output into usable input for our system, allowing the core translation system to integrate new customers into the Billtrust billing engine. User interface development involves ensuring look and feel of statements, and invoices satisfy all requirements. MySQL is used as the primary backend for configuring and maintaining status of batch jobs executed against the core

software. IronPython is used to interface with a .NET core platform, providing Python hooks used to implement customer logic requirements. C# code provided by the merged company is translated into IronPython logic to control the business process and to support integration into our core system. SVN is used as the configuration management system. Business processes include open balance billing, pass thru processing, statement and invoice output, and electronic/print routing configurations. All development performed on the Windows platform. Senior Python Developer July 2014 to August 2016 retained directly and provided 100% remote expertise in bringing in-house, stabilizing, and implementing new features into the Online Legislative Bill Presentation and Voting Service System leveraged by legislators to conduct business electronically. * Assumed responsibility for enhancing and stabilizing major components of the Python tablet-based online voting system that enhanced the recording of all transactions through the House and Senate chambers. Redis was used for recording transactions, and for signaling consumers during votes and roll calls. AngularJS version 1 was used to update the main panel as votes changed, and when speakers requested speaking time. Implemented Continuous Deployment utilizing Jenkins to internal virtual environment. Utilized ActiveMQ for message transfer between website and document conversion application. Communicated with backend using a REST API provided by the third party whose code we inherited. Utilized Puppet to configure Vagrant instances used as test box prior to deployment to our virtual dev environment. * Designed, developed, tested, and implemented front- and back-end enhancements that increased usability leveraging Python 2.7, WebSockets, Django 1.8, redis, Javascript, Angular.js, HTML, and CSS technologies. One enhancement included an optimization of ODT to PDF conversion that allowed us to sunset a Java app, and improve the performance dramatically. Another was to improve the UI look and feel of the Reporting tools used to communicate with legislators, and accurately represent the status of the system. Another was an enhancement to a simple Django app that visualized the backend SVN database as a file system, using third party code. This enhancement allowed business analysts to acquire behaviors they were accustomed to having, including multiple file moves, multiple selections, and other visual updates to a web based home grown file browser. * Executed the conversion from Django 1.4 to 1.8 and

changes to JavaScript code to support Django template changes in 1.8. Upgraded the Voting System from Python 2.6 to 2.7. Built and deployed RedHat RPMs for internal distribution on Red Hat Enterprise Linux 6.2. After conversion of the Voting application, and after deployment, no production level bugs were reported. The stability was sufficient to prevent emergency releases throughout the entirety of the legislation session. * Replaced SVN version control system with Git for front-end enhancements. Leveraged GitLab to submit merge requests following check-in leveraging Git remote update and push. Bank of America - Jersey City, NJ November 2012 to April 2014 Contract as a team member of 8 to develop risk management tools leveraging the Python framework to automate the identification and mitigation of risks. * Wrote Python 2.6 code in a Windows environment to build rich user interfaces and provide business with improved visibility on data / metrics to manage risk. Contributed to design sessions, helping to drive the product roadmap. Utilized a NoSQL database built by Bank of America to manage Python objects, utilized as risk analysis artifacts. Leveraged the Quartz Python platform (> 1M line Python framework) to build application. * Leveraged Agile process and JIRA issue management tool to track the Sprint cycles. Built interfaces based on designs, reviewed screenshots with business partners, developed functionality, and rigorously tested features with internal QA team and business users. Iterated on QA and Production releases, partnering with Business Analysts and management to make sure customer requirements were satisfied. Idirect, LLC - Herndon, VA November 2011 to November 2012 Recruited to advance critical project for satellite internet communication equipment created to support Ka band satellite technology for use in providing internet services on planes, ships, and remote locations. * Designed, implemented, and tested Network Acquisition Server leveraging C++ on Red Hat Enterprise Linux 6 to authenticate remotes prior to acceptance into network. Ported tens of thousands of lines of code for new system from CVS to Git. * Led institution wide integration team for first drop of software, coordinating efforts with principal engineers to successfully demonstrate system to customers. * Developed C++ classes to implement data plans for selling bandwidth and throttle bandwidth to distribution partners. Modified Makefiles to support new automated build system using Jenkins. Developed code using JSON for file processing. * Built an

UML design in two weeks for a proxy client used to transmit statistics to a proxy server. Mentored junior engineers and new contractors. Vectorworks, Inc - Columbia, MD October 2011 to November 2011 Retained to assist in developing a Web-based Payment System leveraging the Django Framework. * Developed the payment processor leveraging PayPal and Python 2.6 on Windows to support online PayPal payments and subsequently alternative vendors. Deployed the Django website using Amazon EC2 environment and fabric. General Dynamics Robotics Systems and Honeywell - Morristown, NJ December 2010 to October 2011 Chosen by Honeywell and subsequently by General Dynamics to assist in developing software in support of the Autonomous Navigation System (ANS) for the Brigade Combat Team Modernization (BCTM) Program. * Developed, tested, and implemented autonomous navigation software for ground-based vehicle transport leveraging C++ and Python 2.6 on Red Hat Enterprise Linux 5.3. * Designed, wrote, and implemented code to provide enhanced ISR and maintenance capabilities to soldiers in combat utilizing C++, DB2, XML, Perl, and QT on Red Hat Enterprise Linux 5.3. member BAE Systems - Nashua, NH January 2009 to October 2010 of the Senor Image Processing Lab to develop new data analysis tools for $1.4B contract to build the Common Missile Warning System. * Developed and tested code leveraging C, C++, FORTRAN, ADA, and PV-WAVE technology for the launch of the next-generation laser countermeasures system and enhance the protection of helicopters and attack aircrafts against heat-seeking missile threats. Vertex, Inc - Berwyn, PA May 2008 to October 2008 Retained to develop enterprise test integration & automation suite for Vertex Enterprise, an end-to-end tax processing solution. * Developed, tested, and implemented tools leveraging Python 2.5 in Windows that strengthened the integration testing and automated the configuration of product. Senior Software Engineer Susquehanna International Group - Cynwyd, PA, US 2007 to 2008 for this global technology-powered financial trading firm to develop, enhance, and support the Arbitrage Strategy Framework utilized to simulate, validate, and strengthen trading strategies created by Analysts on proprietary trading on stock markets across the country. * Created new tools leveraging C++ and Python 2.5 on Linux to enhance overall success of trading strategies. Developed interfaces for computing skew amongst collected data sets, provide statistical data on collected ticket data,

and enable rending on Graphical User Interfaces (GUIs). Senior Software Engineer Alliant TekSystems 2005 to 2007 for key DoD Advanced Anti-Radiation Guided Missile (AARGM) Program. * Designed and implemented software to enhance the range and accuracy of the missile leveraging C++ on Windows across a CMM Level 3 environment. Northrop Grumman - Xontech Division - Van Nuys, CA 2003 to 2005 Originally brought in by Xontech and kept on following acquisition by Northrop Grumman to develop core modules to support Ground Based Missile Defense (GDM) System simulation prior to delivery to DoD. * Designed, developed, and implemented modules to simulate functionality of radar and defection systems across a CMM Level 3 environment. Earned promotion to Senior Software Engineer Teradyne - VLSI Test Division - Agoura Hills, CA 1998 to 2002 within 18 months of hire into Software Engineer role. * Contributed in developing components to increase functionality and test components prior to integration into the complex testing systems for leading semiconductor manufactures. Education Master of Science in Computing Engineering in Computing Engineering IOWA STATE UNIVERSITY - Ames, IA 1998 Bachelor of Science in Computing Engineering in Computing Engineering IOWA STATE UNIVERSITY - Ames, IA 1996 Skills Javascript, CSS, Amazon (2 years), Python (10+ years), Django (5 years), Pandas (2 years), Apache Hive (1 year) Links http://linkedin.com/in/chakaallen Additional Information Technical Expertise: Amazon RedShift, Amazon Aurora, Amazon Glue, AWS Lambda, Apache Hive, ElasticSearch, Scala, Spark, MongoDB, PostGRES, Ansible, Python 3.6, Jenkins, Django, DRF, RHEL Linux

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