**Zach Taylor**

**PROFESSIONAL SUMMARY:**

* Around 6+ years of experience as a Software/Application Developer and coding with analytical programming using **Python, and basics of Java**,
* Experienced with full software development life-cycle, architecting scalable platforms, object-oriented programming, database design and agile methodologies
* Hands on experience in using Python to implement and maintain various mail receipt and delivery standards to prevent phishing attacks against customers.
* Extensive experience in using Python/Perl to code and design various phases for data processing pipeline.
* As a part of email routing team at Rackspace, I have had an intermediate experience in writing scripts in Sieve/lua for email scanning and monitoring.
* Developed code in Python/Perl with latest tools like MongoDB, RabbitMQ to handle/manage data.
* Worked on version control tools like GIT to maintain and deploy code and has also been involved in creating modules for company’s designed pipeline architecture to make it efficient and precise.
* Working knowledge in multi-tiered distributed environment, OOAD concepts, good understanding of Software Development Lifecycle (**SDLC**).
* Working knowledge of Deep Learning Python libraries.
* Expert Knowledge and experience in Object Oriented Design and programming concepts.
* Hands on experience in implementing Artificial Neural Network, Convolution Neural Network, Bayesian Network/BBN, Linear Regression, Logistic Regression, Decisions Tree, Random forest, Pruning, k-NN, SVM, SVDK Clustering, Page Rank and PCA, MCA, MFC, Apriori and other data mining and Deep Learning Algorithms, Social Media Analytics, Sentimental analysis, Market Basket Analysis, Bagging, Boosting, Reinforcement Learning, Q Learning, Hidden Markov Models, Feature selection.
* Implemented deep learning models and numerical Computation with the help of data flow graphs using Tensor Flow Machine Learning.

**EDUCATIONAL BACKGROUND:**

* Master’s in data Analytics, Harrisburg University, PA [CGPA: 3.8/4.0]

**Technical Skills:**

**Programming Languages:** Python 2.7, 3.0, 3.4, C/C++, Java, SAS and ASP.NET

**Databases:** MySql, Oracle, MongoDB, SAS Database Management.

**Web Technologies**: HTML, CSS, JavaScript.

**Operating Systems:** Windows Vista/7/8, UNIX Shell, Linux, Debian.

**Software Tools:** Microsoft Office, Visual Studio 2010, Net Beans, SAS 9.3, Robomongo, Filezila, Rabbit MQ. Software

**Design Patterns:** Repository Pattern, Singleton, Template Method, Facade, Abstract Factory

**Development:** Atlassian, GitHub, SVN, Sublime text.

**WORK EXPERIENCE:**

**Regions Bank, Birmingham, Al** **Feb 2017 –Present**

**Python Developer/Machine Learning Engineer**

**Responsibilities:**

* Worked with team of developers on python applications for RISK management.
* Experienced in Agile Methodologies and SCRUM Process.
* Worked with large, structured, and un-structured datasets.
* Uses Big Data tools (Hadoop, Spark, H2O, CDSW, Domino Labs, etc.) to build data analytics solutions
* Used Pandas, NumPy, Seaborn, SciPy, Matplotlib, Scikit-learn, in Python for developing various machine learning algorithms.
* Built machine learning and Artificial Intelligence (AI) models from development through testing and validation.
* Designs rich data visualizations to communicate complex ideas to business leaders and executives
* Setup storage and data analysis tools in Amazon Web Servicescloud computing infrastructure.
* Utilized Spark, Scala, Spark Streaming, MLLib, Python, a broad variety of machine learning methods including classifications, regressions, dimensionally reduction etc.
* Worked with Hadoop, Spark, Cloudera Workbench, Docker.
* Developed and implemented programs to establish and maintain quality standards of existing products and services.
* Used various OOP concepts to maintain and design the anti-abuse architecture used for the hosted mailboxes.

**Environment:** Python 2.7/3, Unittest framework, HTML5/CSS, UNIX, MS SQL Server 2013, SAS, AWS, JavaScript, Eclipse, RESTful, MVC3.

**Verizon, Irving TX Oct 2014 – Dec 2016**

**Role: Python Engineer**

**Responsibilities:**

* Worked in complete Agile environment.
* Attended daily standups, requirement analysis, story creation, task management and other SCRUM related meetings during the project.
* Utilized various OOP concepts to implement and manage various features of the data processing pipeline.
* Worked on various data structures like classes, dictionaries, lists and tuples in Python to write efficient and well-designed code structure.
* **Managing Data processing pipeline**: Design and handle issues related to various phases of pipeline used to process daily listings.
* **Design Modules:** Create modules for company’s designed pipeline architecture to make it efficient and precise.
* **Maintain legacy pipeline architecture:** Use Python/Perl to code and design various phases for geocoding, mapping, deduping and image processing.
* **Convert to a new architecture**: Currently working on converting legacy architecture into newly design architecture with a more modularized structure that it compatible with all various kinds of data listings we receive.
* Developed various in-house module/packages used to perform specific features for the data processing pipeline.
* Used concepts of generators and decorators to implement efficient scripts to perform the data related tasks.
* Work in Python/Perl with latest tools like MongoDB, RabbitMQ to handle/manage data. Use version control tools like GIT to maintain and deploy code. Development was done in Linux environment.
* Test driven approach was followed to redesign the newly developed architecture, so as to test each and every module and feature.
* Used unittest framework to design and write various test scripts for the modules we wrote.
* Test script were written to unit test each module as well as the whole architecture as one.
* Used SAS to generate various plots/models to determine the daily efficiency of the data pipeline.
* Also used SAS, to generate graphs based on history of the listings processed by the data pipeline architecture as it was improved with time.

**Environment**: Python 2.7, Unittest framework, Shell Scripting, Java Script, JQuery, JSON, MySQL, SAS, Apache, Linux.

**NBT Bank, Norwich, NY Apr 2013 – July 2014**

**Role: Data Analyst (Python)**

**Responsibilities:**

* Design and develop data modules and designs.
* Use Python testing framework to write test scripts for various modules and make sure that the newly designed modules are rigorously tested.
* Work in Agile environment to plan, design and develop the stories for the required projects.
* Interact with the customers to gather the required details about the project and maintain the required documentation.
* Designed and developed the UI of the website using HTML5, AJAX, CSS and JavaScript.
* Designed and developed data management system using MySQL.
* Managing and Monitoring Jenkins (Auditing, Project based Security, Authorization and access management)
* Analyze and generate various plots and reports using Dana analysis tools to keep record of the performance of the system on daily basis.

**Python Experience:**

* Experience working in Python 3.4., written various scripts to design and manage email standards.
* Written various scripts and programs used for processing daily listing data received from various clients.
* Design various modules for the company’s data processing architecture that can be reused by various processes required to manage and process data.
* Used PIP package management system, to install and manage various required software packages used.
* PEP 8 coding standards were followed for each and every script that was developed for any of the projects I use to work on.

**Operating Systems Experience:**

* Expert level experience working in various Linux environment.
* Extensively worked on Ubuntu operating system for all the developments done at previous company.
* Install required software’s and tools that are used for development.
* Also have experience working in windows environment. Mostly worked on Windows 7 Professional

**Environment**: C++, XML, Python 2.7, JQuery, Java, MYSQL, SAS, Flask, Apache, ORACLE, DHTML, HTML, CSS, JavaScript, Shell Scripts, Linux and Windows.