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|  **Subramanya Bhagath** **Full Stack Python Developer 469-288-3832****sbgp534@gmail.com** |  |

 **Certifications:**

* **Certified Azure Data Engineer Associate** in concentration focus on **Azure SQL, Azure SQL Analytics, Azure ARMs, ADF, Data Bricks, and Data pipelines.**
* **Certified AWS Cloud Developer Associate** in concentration focus within **EC2, S3, SNS, SQS, EMR, CloudWatch.**

# Certified Python Developer from Hacker Rank

* **Certified SQL Developer** from **Hacker Rank**

 **PROFESSIONAL SUMMARY:**

* **Full Stack Developer** with **8+ years** of experience in Analysis, Design, Development, Management, and Implementation of stand-alone and client-server enterprise applications.
* Experienced working with **Django** templates, views, forms, authentication, models, and regular expressions.
* Experience in developing **web applications** implementing **Model View** Template architecture using

# Python and Django web application framework.

* Experienced in building apps with **Spring MVC**, **spring boot,** and using **Angular** 9, **Reacts** with

# typescript.

* Implemented and developed **UI/UX** components using **React JS** features like dependency Injection, Models, data-binding, and controllers.
* Developed various screens for the front end using **React JS** and used various predefined components from **NPM** (Node Package Manager) and **React Redux library**.
* Good experience in developing web applications implementing Model View Controller architecture using the **Django** web application framework.
* Design and develop REST APIs using the **Fast API** framework. Daily retailer file imports using Asuncion patterns to minimize the processing time.
* Utilized the Python unit test framework for all **Python applications** and used the **Django** database

**FASTAPI** to access database objects.

* Proficient in **reactive programming** concepts such as observables, streams, and **functional reactive programming.**
* Machine learning models, including generative AI models such as GPT, and Stable Diffusion, were created and fine-tuned to produce text, image, and audio outputs.
* Designed the screens with priming, and **React.js** with **typescript**.
* Experience in software development in **Python** (libraries used: **libraries- Beautiful Soup, NumPy, SciPy, python-twitter, Pandas**)
* Experience with **NumPy, SciPy, HTTPLib2, Beautiful Soup,** and **Pandas Python** libraries during the development lifecycle.
* Experience in working with **Python** editors like **PyCharm**, and **Scripter**
* Hands-on experience with cutting-edge technologies like **Azure**, **Bigdata**, **PySpark**, **snowflake**, and **Talend** in **Python**.
* Experienced in **WAMP** (Windows, **Apache**, **MYSQL**, and **Python**) Architecture and **LAMP**

(**Linux**, **Apache**, **MYSQL**, and **Python**) Architecture.

* Good Experience in using **Microsoft BI** Studio products like **SSIS, SSAS, and SSRS** for the implementation of **ETL** methodology in data extraction, transformation, and loading.
* Expertise in developing Restful microservices using **Python** and **FASTAPI** frameworks.
* Data Science & Quantitative Analysis (**Regression Analysis, Machine Learning**).
* Evaluated Various **AI (Artificial Intelligence)** &**ML (Machine Learning)** tools (**MS Azure Machine Learning Studio, Dataiku**).
* Hands on Experience in **AWS** like **Amazon EC2, Amazon S3, Amazon Redshift, Amazon EMR**

and **Amazon SQS**.

* Experience in Developing **GitLab CI/CD** to run component tests, auto-increment versions, and Deploy to **Crashlytics** Beta users.
* Expertise in Production support and knowledge of deployment using **AWS**, **Heroku,** and **Jenkins**.
* Experience in developing web applications using the **Django** framework including developing

**RESTFUL** services using **Django** and building **API Gateways**.

* Experience in **Azure web app**, **Logic App**, **Azure Blob**, **Azure functions** and web jobs, **Azure SQL**

and other.

* Design and Construct of **Azure Data Pipeline** using various resources in Azure including API Gateway to receive responses and retrieve data from **Snowflake** using **Azure functions**.
* Integrating Big Data with cloud platforms like AWS, Google Cloud, and Azure via services like Amazon S3, Google Big Query, and Azure Data Lake.
* Created sessions, configured workflows to extract data from various sources, transformed data and loaded it into target **snowflake**.
* Solid understanding of **Design Patterns**, **MVC**, **Python Algorithms**, and **python Data Structures**.
* Good Knowledge of **Serverless** application models (**SAM**).
* Utilized **Kubernetes** and **Docker** for the runtime environment of the **CI/CD** system to build, test, and deploy.
* Good experience with **XML/JSON-**based **SOAP** and **REST web services. Good** working knowledge of web application servers **Apache Tomcat** and **Web logic**.
* Experienced with full software development life-cycle, architecting scalable platforms, object-oriented programming, database design, and agile methodologies
* Created a framework using **Plotly**, dash, and **Flask** for visualizing the trends and understanding patterns for each market using the history data.
* Experience in a **Python-**based environment, with data analytics, data wrangling, and Excel data extracts.
* Created **Docker** images using a **Docker file**, worked on **Docker** container snapshots, removed images, and managed **Docker** volumes.
* In-depth understanding of **PySpark** Architecture including Spark Core, Spark SQL, Data Frames, and Spark Steaming with **PySark**.

 **TECHNICAL SKILLS:**

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| **Languages** | Java, Python, SQL |
| **Frameworks** | Django, FASTAPI, Flask |
| **Python Packages** | NumPy, Pandas, Matplotlib, PySide, SciPy, Plotly, python, PyTables |
| **Cloud Services** | AWS, VMware, Microsoft Azure, Azure blob storage, Azure queues, Azure Tables. |
| **Web Technologies** | CSS, HTML, Bootstrap, jQuery, JavaScript, AngularJS, ReactJs, Redux, JSON |
| **Web/App Server** | Nginx, Apache Tomcat, IIS |
| **IDE** | PyCharm, PL/SQL Developer, TOAD |
| **Other Tools** | Jenkins, PySpark, IBM Integration and Web Builder, JIRA, Bugzilla, Rally, Version One, ETL tools (Talend), DB2, and Datawarehouse. |
| **Management Tools** | SVN, Git, Docker, Kubernetes. |
| **Databases** | Oracle 10/11g, MySQL, SQL Server |
| **Operating Systems** | Unix, Linux, Windows, and Mac OS |

 **PROFESSIONAL EXPERIENCE:**

**Client:** **State Farm, TX Oct 2023 to Till Now**

**Domain: Insurance**

**Role: Sr Python Developer with Azure (Full Stack)**

**Responsibilities:**

* Developed application logic using Python, JavaScript, and Java.
* Designed the front end and back end of the application utilizing Python on Django Web Framework.
* Configured Azure Multi-Factor Authentication in IAM to implement 2-step authentication of user's access using Google Authenticator and Azure Virtual MFA.
* Included security groups, network ACLs, Internet Gateways, and Elastic IPs to ensure a safe area for the organization in Azure public cloud.
* Designed the screens with priming, and React.js with typescript.
* Fused React.js web app with the desktop application to achieve seamless web-desktop interaction, leading to a 30% improvement in user experience and user engagement.
* Migrating the coding from Hive to Oracle using Python Spark SQL (PySpark), Data frames, and RDD.
* Proficient in reactive programming concepts such as observables, streams, and functional reactive programming.
* Used Python modules like Restful, Matplotlib, and Pandas library for statistical analysis and generating complex graphical data and NumPy for numerical analysis.
* Developed various screens for the front end using React JS and used various predefined components from NPM (Node Package Manager) and React Redux library.
* Written UNIX shell scripts to automate the jobs and schedule Cron jobs for job automation using commands with Crontab.
* Design and Construct of Azure Data Pipeline using various resources in Azure including API Gateway to receive responses and retrieve data from Snowflake using Azure functions.
* Developed Merge jobs in Python to extract and load data into Azure SQL database.
* Utilized Configuration Management Tool Chef and created Chef Cookbooks using recipes to automate system operations. Docker/Kubernetes Containerization of cloud-based applications.
* Implemented build stage- to build the microservice and push the docker container image to the private docker registry.
* Work with NLTK library to NLP data processing and finding the patterns.
* Worked on the end-to-end setup of the Artifactory pro as a docker container with a secure private docker registry and local docker repositories for storing the built docker images.
* Designed SSIS Packages to extract, transfer, and load (ETL) existing data into SQL Server from different environments for the SSAS cubes.
* Experience in applied R/SAS programming and SQL programming complex RDBMS Data structures.
* Created a framework using Plotly, dash, and Flask for visualizing the trends and understanding patterns for each marketing using the history data.
* Using Machine Learning (ML) to predict major economic indicators based on detailed credit data from client & cloud environments.
* Ran build jobs and integration tests on Jenkins Master/Slave configuration.
* Application of various machine learning algorithms and statistical Modeling like decision trees, text analytics, natural language processing (NLP), supervised and unsupervised, regression models, social network analysis, neural networks, deep learning, SVM, clustering to identify Volume using Scikit-learn package in python
* Maintained fully automated CI/CD pipelines for code deployment (GitLab/ Jenkins).
* Conducted systems design, feasibility, and cost studies and recommended cost-effective cloud solutions such as Azure.
* In Python, we used the Kafka Streams API to analyze, filter, and aggregate data streams in near real-time.
* Kafka was integrated with Python microservices for asynchronous message processing and inter-service communication, which increased system reliability and scalability.
* Experienced in implementing Enterprise systems based on Microsoft Azure PaaS platform using Azure Storage Queue, Azure Blob, and Azure Web apps.
* Implemented Azure Application insights and exported RED (Requests, Error, Duration) counts to AI.
* Involved in the complete SDLC life cycle - Designing, Coding, Testing, Debugging and Production Support.
* Involved in day-to-day maintenance and problem analysis on storage.

**Environment:** Python, Spark, Django, Matplotlib, Azure blob, Azure storage, Pandas, MySQL, React.js, Linux, HTML, XHTML, SVN, Talend, DB2, Data structures, OpenTelementry, FASTAPI, ETL, Snowflake, Data Warehouse, Plotly, Docker, Kubernetes, CSS, AJAX, Bugzilla, JavaScript, Apache Web Server, AI (Artificial Intelligence), ML (Machine learning), NLP.

# Client: Myriad Genetics, Utah Jan 2023 to Sep 2023

# Domain: Healthcare & Lifesciences

**Role: Sr. Python Developer AWS (Full Stack) Responsibilities:**

* Responsible for gathering requirements, system analysis, design, development, testing, and deployment.
* Evaluating business requirements and preparing detailed specifications that follow project guidelines required to develop written programs.
* Working on various phases of the Software Development Life Cycle using Agile - Scrum Software development methodology.
* Developed NLP models for Topic Extraction, Sentiment Analysis
* Fixing bugs, enhancing applications by improving code reuse, and upgrading performance by making effective use of various design patterns.
* Experience data processing like collecting, aggregating, and moving from various sources using PySpark and Panda Libraries. Experience in NoSQL columns.
* Good working knowledge of machine learning models such as supervised learning, unsupervised learning, regression and classification liner regression, tree and forest using Python packages such as sci-kit-learn, pandas, NumPy, seaborn, and plotly.
* Developed complex ETL jobs from various sources such as SQL servers and other files loaded into target databases using the Talend OS ETL tool.
* Written Pre and Post Session SQL commands (DDL & DML) to drop and recreate the indexes on the data warehouse.
* Used generative AI tools to create new marketing campaigns, automate content generation, and increase audience engagement.
* Integrated R’s visualization capabilities with Python for comprehensive reporting and dashboarding.
* Building a distributed system for triggering and executing daily data processing jobs which contains a high-availability scheduler (built with Python), a cluster of workers (built with Python), and UI (built with Python and Django).
* Experience delivering products or solutions that utilize machine learning, Natural Language Processing, or other forms of AI (Artificial Intelligence).
* Designed ML (Machine Learning) / NLP approach for extracting item prices and manufacture from web pages.
* Kafka clusters were monitored using metrics and logs to optimize performance and address issues such as message lag, partitioning, and broker health.
* Designed a range of containers using the Docker engine and Docker System environments to deploy microservice-oriented environments for scalable applications.
* Responsible for the development of entire backend modules using Python.
* Integrating Amazon Cloud Watch with Amazon EC2 instances for monitoring the log files and tracking metrics.
* Kafka consumers and producers were deployed in Docker environments, allowing for automated deployment and scalability in cloud-native architecture.
* Creating Highly Available Environments using Auto-Scaling, Load Balancers, and SQS.
* Automating the existing scripts for performance calculations using NumPy and SQL alchemy.
* Defining branching, labeling, and merge strategies for all applications in Git.
* Used Talend tool to create workflows for processing data from multiple source systems.
* Created a highly scalable, distributed system for running web applications and web services by working with architects and developers and ensuring the implementation of Restful Web services and FastAPI design.
* Utilized Angular Material and Bootstrap to design intuitive, user-friendly, and responsive UIs, ensuring a consistent and modern look across applications.
* Created and optimized Angular components, services, and modules to build modular and scalable user interfaces for data-driven applications.
* Utilized Angular's built-in form modules to create robust, validated, and dynamic forms with real-time validation for user inputs, enhancing data collection workflows.
* Designed and implemented secure authentication and authorization mechanisms using JWT in Angular applications to ensure role-based access control.
* Working on Performance Tuning and Query Optimization in AWS Redshift.
* Designing applications on AWS taking advantage of Disaster recovery.
* Used Azure Devops from the repository and controlled the code without any conflicts, logging and monitoring tickets.
* Developing Cloud Formation scripts to build on-demand EC2 instance formation.
* Utilizing AWS CLI to automate backups of ephemeral data stores to S3 buckets and EBS.
* Creating nightly AMIs for mission-critical production servers as backups.
* Configuring and maintaining the monitoring and alerting of production and corporate servers/storage using Cloud Watch.

**Environment:** Python, Spark, Django, NumPy, Plotly, AngularJs, HTML/CSS, ETL, FASTAPI, MySQL, GIT, CI/CD, Talend, Snowflake, GitHub, AWS (RDS, IAM, S3 Cloud Watch), Open Telemetry, Docker, Kubernetes, ML (Machine learning), AI (Artificial Intelligence), NLP

# Client: Albertsons, TX Feb 2022 to Dec 2022

# Domain: Retail

**Role: Sr. Cloud Python Developer (Full Stack)**

**Responsibilities**

* Responsible for debugging and troubleshooting the web application.
* Solved production issues at the time of emergency.
* Design and develop APIs to share data with cross-functional teams using the Hug and FASTAPI framework.
* Designed and developed a data management system using Azure SQL
* Redis caching for fast reads for a good shopper experience
* Managed Data storage and processing pipelines in Azure for serving AI (Artificial Intelligence) and ML (Machine learning) services in production, development, and testing using SQL, Spark Python, and AI VM.
* Developed NLP models for Topic Extraction, Sentiment Analysis
* Followed different caching mechanisms for different use cases viz., lazy-loading pattern, write-through pattern
* Development of Artificial intelligence (AI) based threat intelligence engines.
* Implemented Spark using PySpark libraries for faster testing and processing of data.
* Contributed to complex APIs which should provide full-text search, etc.
* Write unit tests for both APIs and batch jobs.
* Experience querying huge datasets stored in Hadoop using Hive and Python (HiveQL) and integrating with tools such as PyHive.
* Written Pre and Post Session SQL commands (DDL & DML) to drop and recreate the indexes on the data warehouse.
* Researched generative AI techniques, including breakthroughs in transformer models, attention processes, and diffusion models.
* Used ReactJs as a framework to create single page applications (SPA) which can bind data to specific views and synchronize data with the server using Saas, Bootstrap, and ReactJs.
* Implemented and developed UI/UX components using React JS features like dependency Injection, Models, data binding, and controllers.
* Employed Kotlin and React JS to develop front-end solutions, including usage metrics, end-to-end event tracing, and user interface enhancements.
* Implemented error management and data retries in Kafka pipelines to provide data consistency and fault tolerance in distributed systems.
* Applied generative AI to video and image synthesis, generating cost-effective and scalable multimedia solutions.
* Utilized Kotlin in React JS development, including working with the React Flux architecture to create efficient and scalable applications.
* Monitor daily batch jobs to check for any failures and fix them.
* Coded test programs and evaluated existing engineering processes.
* Experience in the field of Data Warehouse Concepts like Snowflake, using ETL tools such as Informatica Power Center, and Databases such as Azure SQL and MS SQL Server.
* Experience with using Apache Sqoop to transport data between Hadoop and relational databases.
* Analyzed the SQL scripts and designed solutions to implement using PySpark.
* Designed and configured database and backend applications and programs.
* Performed research to explore and identify new technological platforms.
* Creating unit test/regression test framework for working/new code.
* Worked on Power Shell scripts to automate the Azure cloud system creation of Resource groups, Azure Web Applications, Azure Storage blob & Tables, and Firewall rules.
* Used Azure ARMs, and GitHub actions for continuous deployments
* Groovy is an object-oriented programming language that could be described as Java paired with a dynamic scripting language like Python.
* Participated in the complete SDLC process.
* Core development experience Groovy Grails restful web services.
* Effectively communicated with external vendors to resolve queries.
* Developed, tested, and debugged software tools utilized by clients and internal customers.
* Coded test programs and evaluated existing engineering processes.

**Environment:** Python, Django, NumPy, Spark, Postgres, Snowflake (Machine learning), Redis, ReactJS, REST, Azure, Kibana, Mac, PyCharm, Groovy, GIT, AWS Cloud, NLP.

# Client: IEG Group, India Sep 2019 to July 2021

# Domain: Investment Banking

# Role: Sr. Application Developer (Full Stack)

**Responsibilities**

* Involved in AWS user, EC2 server provisioning, creating policies and attaching various polices to user.
* Configured AWS Identity Access Management (IAM) Group and users for improved login authentication.
* Process good knowledge in creating and launching EC2 instance using AMI’s of Linux and Windows.
* Worked on Creating snapshots and Amazon machine images (AMIs) of the instance for backup and creating clone instances.
* Created and configured elastic load balancers and auto scaling groups to distribute the traffic and to have a cost efficient and highly available environment.
* Integrated Amazon Cloud Watch with Amazon EC2 instances for monitoring the log files and track metrics.
* Experience deploying, configuring, and administering Hadoop clusters, possibly leveraging cloud services such as AWS EMR (Elastic MapReduce) or Microsoft HDInsight.
* Configured S3 buckets with various life cycle policies to archive the infrequently accessed data to storage classes based on requirement.
* Utilized the python Unit test framework for all python applications and used Django database FASTAPI to access database objects.
* Created volumes for storing application files for use with EC2 instances whenever they are mounted to them.
* Extracted data from various source systems like PL/SQL, SQL Server, DB2, XML, Excel and loaded it into relational data warehouse.
* Converted different incoming data to csv file using PySpark with Panda libraries.
* Used existing deal model in python to inherit and create object data structure for regulatory financial reporting.
* RPy2 was used to integrate R and Python in data science and machine learning pipelines, allowing both languages to benefit from their own strengths.
* Build and manage real-time data pipelines using Python and technologies such as Apache Kafka enabling real-time trading, market data processing, and analytics for investment banking clients.
* Develop secure and scalable APIs to integrate with Fast API for external financial data providers, trading platforms, and internal systems, enabling real-time financial data access for investment analysis and decision-making
* Contributed to complex APIs which should provide full-text search, etc. Write unit tests for both APIs and batch jobs Monitor daily batch jobs to check any failures and fix them.
* Designed and Developed python based FASTAPI (Restful Web Service) to interact with banking user interface.
* Worked on multiple AWS services like ECS, AWS Lambda, S3, etc.
* Coded test programs and evaluated existing engineering processes.
* Used AWS Cloud Formation, GitHub actions for continuous deployments and Version Control
* Groovy is an object-oriented programming language which could be described as java paired with a dynamic scripting language like python.
* Participated in the complete SDLC process in Agile methodology.
* Core development experience Groovy Grails restful web services.

**Environment:** Python 3.9, Fast API, Postgres, Redis, REST, PyCharm, Groovy, Snowflake, Groovy, DB2, SQL, GIT, AWS Cloud, Kibana, Mac, Kafka, Pyspark.

# Client: Qualcomm, India Nov 2015 to Aug 2019

# Domain: Microprocessors & Technology

# Role: Application Developer

**Responsibilities:**

* Develop robust data ingestion, transformation, and processing pipelines using Python and integrate them with the front-end interface, enabling Qualcomm teams to interact with large datasets in real time.
* Worked closely with software engineers, data scientists, and system architects to integrate real-time data pipelines with existing Qualcomm hardware and software solutions.
* Re-engineered various modules for implementing changes and creating efficient systems.
* Created and optimized Angular components, services, and modules to build modular and scalable user interfaces for data-driven applications.
* Utilized Angular's built-in form modules to create robust, validated, and dynamic forms with real-time validation for user inputs, enhancing data collection workflows.
* Managed large datasets using Panda data frames and MySQL and created an efficient system.
* Designed and Developed UI using HTML, XHTML, AJAX, Javascript and jQuery.
* Used Javascript libraries like jQuery UI, DataGrid, jscolor, high charts.
* Developed the presentation layer HTML, JSP, CSS and DHTML.
* Developed widgets for GUI using PyGtk modules of python.
* Used Django to develop web-based applications and deploy them using Jenkins.
* Used MySQL as backend database and MySQL dB of python as database connector to interact with MySQL server.
* Integrated third-party libraries and APIs into Angular applications to extend functionality and enhance user experiences, such as integrating payment gateways, charts, and real-time notifications.
* Worked with state management libraries such as NgRx to manage application state in large-scale Angular applications, improving performance and maintainability.
* Developed Page layouts, Navigation and presented designs and concepts to the clients and the management to review.
* Using Restful APIs to access data from different suppliers.
* Implemented real-time data updates and interactions in Angular applications using RxJS and WebSockets, improving user experience and application responsiveness.
* Designed and implemented secure authentication and authorization mechanisms using JWT in Angular applications to ensure role-based access control.
* Used Python and Django for creating graphics, XML processing of documents, data exchange, and business logic implementation between servers.
* Used python Data structures like sqlite3, dictionaries, and tuples.
* Used several Python libraries like NumPy, Pandas, and Matplotlib.
* Helped with the migration from the old server to Jira database with Python scripts for transferring and verifying the information
* Supported Apache Tomcat Web server on Linux Platform.
* Used RAD 7.0 for implementing Static and Dynamic web services for consuming and providing services related to the business.
* Developed and executed the User Acceptance Testing portion of a test plan.
* Involved in writing application-level code to interact with APIs, Web Serving using AJAX, JSON, and XML.

**Environment:** Java 8, Python 3, Django, Data structures, MySQL, Ubuntu, Mac OS X, AngularJS, JavaScript, GIT, SVN, REST, IBM Bluemix, Pivotal.