**Samuel G. Prabhakar**

**Employer:** VisionSoft Intl Inc. pl contact: prabhu @ 770-872-7576

**Summary**

* Over 7 years of experience using **Python**, **C++**, **Java**, **PHP** & **JavaScript** for OOP concepts.
* 3 years of experience in using **C#,** **MATLAB,** and **MathCAD**
* Proficient in writing **SQL** Queries, Views, Joins, Constraints, DDL, DML and user defined functions to implement the business logic experience.
* Monitored performance and optimized SQL Queries for maximum efficiency.
* Expertise in web automation scripts using python selenium library and integrating it with ChromeDriver.
* Involved in development, testing and Maintenance, as well as resolved problems during implementation.
* Coordinated between technology groups to identify business processes and system requirements.
* Experience with version control system such as **Git**, and **GitHub**
* Experience with CI tools such as **Circle CI** to do **unit testing**, and **continuous integration**.
* Experience in Data extraction, Transforming and Loading.
* Have Business content activation experience, Metadata repository usage experience.
* Experience in creating Web reports.
* Good in SDLC with **Agile** and **Waterfall Model**.
* Have experience in deploying web applications using **Heroku.**
* Experienced in using enterprise service applications.
* Coordinated between technology groups to solve campus wide technology related emergency incidents.
* Experience in using **BI tools** such as Team Dynamix
* Experience in using enterprise service applications.
* Experience in using **SEIM tools** such as DUO admin, and

**Education:**

* Bachelor of Science in Software Engineering

**Technical Skills:**

**Python Libraries** Flask, Network Jython, Pytest, Selenium, Requests, TensorFlow, Scipy, NumPy, Pandas, Matplotlib, PyTorch, Sickit-Learn, PyTorch Geometric, Pillow, Beautiful Soup, Webull, csv, Bluez, keyboard, mouse

**Python Web Framework** Django, Flask

**C++** Qt, Eigen, OpenCV, Boost C++ Libraries

**Java** Spring Boot, JUnit, JavaFX, Jython

**MATLAB** Modbus Explorer, Singal Analyzer, Instrument Control

**Web Technologies** HTML5, CSS3, AJAX, XML, JSON, jQuery, and PHP

**IDE** Visual Studio Code, PyCharm, Visual Studio, Android Studio, Eclipse, Atom, Jupyter, Notebook, Google Collab

**CI Tool** Circle CI, GitLab CI/CD

**Database** PostgreSQL, SQLite3

**Package Mgmt Tool** pip, conda, pipenv, Aanaconda, PDM

**Version Control** Git, Git Kraken

**Documentation Tools** Over Leaf and Latex, MS Word, MS PowerPoint, MS Excel, Libre

**Methodologies** Agile, Scrum, and Waterfall, IDP (Iterative Development Process)

**Deployment Tools** Heroku, AWS, Render, WIX

**Operating System** Windows, Kali-Linux, Ubuntu, MacOS

**Scripting Languages**  zsh, bash, and batch

**File Types** csv, bin, xlsx, dat, iso, db, exe, sh

**Professional Experience:**

**Client: Bank of The West, Phoenix, AZ July 2022 – Present**

**Role: Full stack Python Developer**

**Description:** This application provides end-to-end payment services for commercial and corporate banking customers. This is the core platform which provides all payment services, special services, and billing features. Customers have different channels to process their services such as host to host, mobile, web services, and e-Banking.

**Responsibilities:**

* Participated in business meetings, grooming’s to gather functional requirements and cleared any blockers in implementing the requirements.
* Discussed requirements with architecture for better understanding of the technical requirements to avoid any blockers beforehand.
* Worked with a team of developers on **Python** applications for **RISK** management.
* Used **Python OOD** to ensure reusability, reliability, extensibility, and quality coding.
* Implemented Automated Billing solution for all commercial customers using **Django**, **Celery**, and **PostgreSQL**. This solution reduced the manual burden as well as time and cost.
* Developed **RESTful APIs** using **Django REST Framework**. These APIs are extensively used by other applications in the project. Used **Postman** and **Pytest** for API testing.
* Developed services for customers using **Django** and **Flask**. Extensively used PDF template libraries such as Report Lab for customer payment information generation.
* Experience in using Enterprise integration frameworks such as Apache Airflow. Developed workflows to move files from SFTP servers and message queues to application servers.
* Migrating production infrastructure to Amazon Web Services **(AWS)** utilizing **CloudFormation, Chef, Jenkins, and Docker**.
* Automated **AWS** services, including web servers, ELB, CloudFront distribution, database instances, **EC2** security groups, **S3 buckets**, and application configurations.
* Experience in working with ORM frameworks like **Django ORM** and **SQL Alchemy.**
* Developed an Email service application for the project using **Django**, **Celery**, **PostgreSQL**, **Swagger,** and Python. This is widely used in the project to send emails to customers.
* Extensively used Python features such as **decorators**, **generators**, and **context managers** in the development of services and features.
* Involved in the design and development of RTP payments for commercial customers and successful integration with external vendors.
* Experience writing shell scripts in **Linux** and Python for automating regular tasks.
* Designed and developed **relational database schemas**, **tables, views**, **indexes**, and constraints for easy and fast retrieval of data from **PostgreSQL** and **MySQL**.
* **Used Angular for delivering user experiences such as high performance, offline accessibility, and zero-step installation.**
* **Experience in writing complex SQL queries using joins, stored procedures, functions, triggers, cursors, and indexes in the data access layer.**
* **Worked closely with the back-end team to implement AJAX calls to REST APIs and update dynamic functionality of HTML in Angular.**
* **Designed and developed the application using Agile methodology, following TDD and Scrum practices.**
* **Implemented RESTful web services using Flask and Django REST Framework and created and read JSON objects using the JSON module and Marshmallow for serialization.**
* **Developed parsers to parse customer files into Python objects using libraries such as lxml, Beautiful Soup, and pandas.**
* **Involved in identifying and implementing different design patterns like Singleton, Factory, and DAO using Python.**
* **Built reusable service components using AngularJS services with Object-Oriented JavaScript, jQuery, HTML, and CSS3 based on the visual designs.**
* **Experienced in RDBMS such as PostgreSQL, MySQL, and SQLite. Used MongoDB for proof of concept and have experience in creating stored procedures and remote procedure calls (RPC).**
* **Experience in writing unit test cases using Pytest, unittest, and mock libraries.**
* **Developed applications using build tools like Pipenv and Poetry and used logging frameworks such as Python's built-in logging and Loguru.**
* **Involved in writing and executing SQL scripts, fixing issues, and monitoring to ensure timely releases.**
* **Collaborated with testers and developers to prepare test plans for producing high-quality software applications.**
* **Involved in fixing bugs in biweekly iterations and publishing updates to all environments.**
* Conducted weekly progress meetings with the client, following an **Agile** Approachwith **SCRUM** Processes, to discuss trial results, adapt strategies, and ensure alignment with project goals.
* Responsible for **gathering requirements, interviewing stakeholders,** and **mapping** **business requirements** to **technical requirements**.
* Used **Diagram.net** to create **UML class diagram** to design OOP, **ERD** to design the database, and **Process Flow Chart** to better understand the proposed inner works of the simulation during **Sprint Review.**
* Developed the web interface in **Django Framework's** model view control (MVC) architecture and manipulated databases by using **Django database.**
* Involved in web designing using **HTML 5, XHTML, CSS 3, jQuery, JavaScript** extensively used Table less Design in **CSS** for positioning.
* Created **page views, templates,** and **CSS layouts** within the **Django** **Python** **Framework** for

efficient inventory status view.

* Conducted rigorous **unit testing** for each class using **unittest** module, ensuring the reliability and correctness of individual components of the simulation.
* Utilized **Git for version control**.
* Used **Test driven approach** for developing the application and implemented the unit tests using **Python Unit test** framework.
* Engineered and implemented scalable data processing pipelines, leveraging **Pandas** and **NumPy** for efficient data manipulation. This included the optimization of workflows for large datasets, resulting in substantial time and resource savings.

**Environment: AWS, EC2, Python, Django, Beautiful Soup, NumPy, Scipy, Pandas, unittest, Git, PyCharm, PostgreSQL, OOD, UML Class Diagram, ERD, Process Flow Chart, Sprint Review, Agile, SCRUM, MS-Word, Over-Leaf, Python Unit Test, HTML5, CSS3, jQuery, JavaScript**

**Client: Takeda Pharmaceuticals, Chicago, IL July 2020-June 2022**

**Role: Python Developer**

Description : Cerner-MMD HIE is a health information exchange providing physicians with near real-time, secure, clinical and administrative information regardless of location, affiliation, EMR technology, or vendor

**Responsibilities:**

* Extensively worked on the development and configuration of new HIEs applications and data transactions using Python, Django, and Apache Tomcat, with dependency management handled by pip and virtual environments.
* Developed use case diagrams, class diagrams, database schemas, and provided mapping between relational database tables and object-oriented Python objects using Django ORM. Supported CRUD operations.
* Developed, supported, and enhanced RESTful Webservice calls from third-party APIs to the HIE server using Django REST Framework.
* Created Angular services to invoke RESTful APIs (HTTP GET, PUT, POST, DELETE) operations. Used AngularJS to call REST CRUD APIs (Django REST Framework).
* Supported RDBMS transactions using SQL Alchemy. Designed and developed re-engineering from raw SQL/RDBMS to Django ORM data access layer conversion.
* Developed Python classes, Data Access Objects (DAO) that handled all database operations using Django ORM.
* Designed and developed internal utilities like "Regression Utility" and "Monitor Log" utilities using Django, HTML, JavaScript, Django templates, logging, SQL, and SQLite/PostgreSQL.
* Implemented code and performed code reviews for other developers to ensure code quality and adherence to best practices.
* Created XML schemas in PostgreSQL using the XML data type and CREATE SCHEMA statements. Retrieved specific XQuery results against the XML type returned by the schema.
* Involved in developing a unit test framework using Pytest. Wrote Pytest test cases for every Python class.
* Handled issue tracking, follow-up, and resolution using tools like JIRA.
* Experienced in using **BI tools**.
* Perform troubleshooting, fixed and deployed many Python bug fixes of the two main applications that were a main source of data for both customers and internal customer service team.
* Involved in **Unit Testing** and **User Acceptance Testing**
* Created **Web reports** and dashboard for the requirement.
* Created Technical specification and Unit test plan.
* Prepared the User manual and explained the same to the end user of the report.
* Attending daily scrum calls to discuss the Jira stories and tasks.
* Wrote **batch script** to automate processes in work desktops.
* Developed views and templates with **Python** and **Django's** view controller and templating language to create a user-friendly website interface.
* Developed a Python script utilizing the **Selenium** library for web automation.
* Integrated **ChromeDriver** for browser automation, ensuring seamless interaction with web pages.
* Responsible for debugging and troubleshooting the web application.
* Extracted data from PostgreSQL, Cassandra, Redis, Influx dB and Elasticsearch.
* Used Python libraries and SQL queries/sub queries to create several datasets which produced statistics, tables, figures, charts and graphs.
* Collaborated with the team to make code modifications supporting their testing and documentation processes.
* Adapted the script to meet the team's specific requirements and integrate seamlessly into their workflow.
* Excellent **Interpersonal** and **communication** skills, efficient time management and organization skills, ability to handle multiple tasks and work well in a team environment.
* Implemented **CI/CD** with **GitHub**
* Provided **24\*7 support** and **monitoring** of the enterprise’s infrastructure

**Environment: Python, selenium, batch script, SQL, csv, chrome drive, Atom, and MS Word**

**Client: Black Hawk Network May 2017 – Jun’ 2020**

**Role: Python Developer**

**Responsibilities:**

* Designed and built a cashier POS system.
* Built the front-end using **HTML 5, JavaScript,** and **CSS**.
* Used **jQuery** for all client-side **JavaScript** manipulation
* Designed the application using **Agile** Methodology and **Scrum.**
* Contributed to the creation of essential documents supporting different phases of **SDLC** including requirements and analysis reports, design documents, and technical documentation.
* Integrated **PHP** custom built classes with **Django** library; it processed user transactions.
* Created Business Logic using **Python** to create Planning and Tracking functions.
* Event driven actions were handled by **JavaScript**.
* Used **Diagrams.net** to draw **Class** **UML** diagrams to make **used case UML** diagrams.
* **Diagrams.net** was also used to make **database schema.**
* Wrote **SQL Queries**, Store Procedures and store customer transactions, Triggers and functions using **PostgreSQL.**
* Built database Model, Views and API's using **Python** for interactive web-based solutions.
* Implement features for **Continuous Integration/Continuous Development (CI/CD) pipeline** test framework
* **Git** was used for version control.
* Used **GIT** control tool to coordinate team-development.
* Developed and executed User Acceptance Testing portion of test plan.
* **Circle CI** was used to do unit testing and continuous integration.
* **PyCharm IDE** was used during the development.
* Created **UNIX batch scripts** for **data loading** and **data file extraction**.
* Involved in requirements gathering and User Story discussion
* Responsible for Fraud Check Feature implementation (Trustev) in the eGift Activation application using Django and DRF.
* Introduced a registration page in the eGift Activation application to gather recipient details using Django forms and views.
* Implemented eGift security enhancements to encrypt the eGift ID using Python's cryptography library.
* implemented Apple Pay and Samsung Pay features in the eGift Activation application using relevant Python SDKs and APIs.
* Managed changes to the Samsung and PayPal adapters, ensuring smooth integration with the eGift processing API.
* Participated in daily scrum meetings, contributing to Agile development practices.
* Conducted code reviews to ensure code quality and adherence to best practices.
* Responsible for User Story demos at the end of each sprint, showcasing completed features to stakeholders.
* Blackhawk Network Holdings, Inc. is a leading prepaid and payments network that supports program management and the physical and digital distribution of a wide range of prepaid products.
* The eGift team manages eGifts purchased through GiftCardMall.com.
* Developed and maintained the eGift processing API, the backbone of eGifts, responsible for processing eGifts using Django REST Framework.
* The eGift Activation application allows customers to view their eGift cards with barcodes redeemable at stores, developed using Django.
* The eGift Activation application also supports Apple Pay, Android Pay, and Samsung Pay features, implemented using Django and relevant SDKs.
* Worked with content providers using Adapters to generate eGifts, integrating with the eGift processing API.

**Environment: Python, Flask, PHP, OpenSSL encrypt, SQL, PostgreSQL, HTML, CSS, JavaScript, PyCharm, Git, Diagram.net, UML, Agile, Scrum, SDLC.**

**Cardboard Stringer Strength Analysis with Sand Loading and MATLAB Modeling Conducted** January 2018 – March 2018

Stringer strength testing using cardboard and MATLAB, employing a unique approach of incrementally adding sand until failure. Applied advanced engineering principles to analyze structural integrity and determine optimal strength parameters, showcasing proficiency in MATLAB for data analysis and modeling.

**Environment: MATLAB R2019B, MATLAB.**