# SAI SHASHANK PANGULURI

shashank.khf@gmail.com                    |+1-(757)9975293

## SUMMARY

- Around 6+ years of experience as a Python Developer, proficient coder in multiple languages and experience in Design, Development, Implementation of Python, Django, Flask client-server technologies-based applications, RESTful services and SQL.
- Experience in Object oriented Design and Programming concepts.
- Experience as a Web Application Developer and Software Engineer using Python, Django, Flask, and HTML.
- Experienced in working on Application Servers like WebSphere, WebLogic, Tomcat, Web Servers like Apache server, NGINX and Integrated Development Environments like PyCharm, Visual Studio Code, Sublime.
- Experience with Design, code, and debug operations, reporting, data analysis and web applications utilizing Python.
- Experience on all phases of Software Development Life Cycle (SDLC), its methodologies such as Agile, SCRUM and Waterfall Model.
- Experience in developing Web Services with Python programming language and good working experience in processing large datasets with Spark using Scala and PySpark.
- Experience in MVC architecture using Django for web-based application in OOP concepts.
- Experience in software tools such as Flask, SQL Alchemy, AWS Lambda, DynamoDB, AWS Aurora (PostgreSQL) and Docker.

## EXPERIENCE

### Graduate Research Assistant, ODU, Norfolk, VA                    *Jan 2022 – Till Now*

**Responsibilities**
- Developed Python functions for processing geospatial images and data cubes, including flood detection models.
- Created a Python function to generate a boundary map from an address by retrieving its latitude and longitude coordinates using google maps API.
- Currently pursuing research in computer vision and data extraction from images using OpenCV and automating the data files from ROS2 to jupyter notebook for data analysis.
- Worked on LSTM Neural Network. Creation of hybrid NN model for Time Series prediction of Solar Power. Worked on Statistical analysis of data, Parameter inference (Gaussian).
- Collaborating with other researchers on big data applications for data crunching and analysis using PySpark on the HPC cluster and optimizing map-reduce algorithms to get better results.

### Python Developer, TCS, Hyderabad, India                    *Nov 2019 – Dec 2021*

**Responsibilities**
- Involved in the software development lifecycle (SDLC) of tracking the requirements, gathering, analysis, detailed design, development, system testing, and user acceptance testing.
- Designed the database schema for a centralized dashboard that will serve as a database for multiple applications.
- Created APIs using Django-Rest Framework and implemented JWT authentication and role-based access.
- Deployed the application on a Client server with separate production and development instances using Gunicorn and Nginx.
- Implemented a backend asynchronous task queue system for data processing pipelines using libraries/frameworks like Django-Celery, and RabbitMQ.
- Manage and plan the design and development of Client-Application. Coordinated with offshore teams to deliver the work.
- Established Container based deployment over AWS ECS by reducing deployment time by 35%. Also worked on many python automation scripts to help monitor failures.
- Establish appropriate business metrics to track success for CI/CD capability and share with the broader organization to encourage increased adoption of CI/CD practices.
- Build SQL queries for performing various CRUD operations like create, update, read and delete. Executed MySQL database queries from Python-MySQL connector and MySQL DB package to retrieve information.
- Created tables, views, Types, triggers, complex join queries, stored procedures, Functions, and modifications to existing database structure as required for adding new features using SQL developer.

- Worked on Python Open stack API's, used Python scripts to update content in the database and manipulate files.
- Working experience on different high-performance libraries like Pandas, NumPy, SciPy, and Matplotlib.

**Environment:** Python 3.7/2.6/2.7, Django Framework 1.3, CSS, SQL, MySQL, Nginx/Gunicorn web server, Git, Gitlab, Ansible, JavaScript, HTML5/CSS, PostgreSQL, Amazon Web Service (AWS), S3, EC2, EBS, PyCharm, Microsoft Visual Code, Linux, Shell Scripting, JIRA.

**Software Engineer, Infosys, Hyderabad, India** *Sep 2018 – Oct 2019*

**Responsibilities:**
- Incorporated Tesseract OCR (pytesseract) engine into billing and invoicing processes, resulting in a 60% reduction in cycle time per request with higher accuracy.
- Developed a Python script, to trace real-time storage on various Linux and Windows servers. As a result, a report was produced using Matplotlib with details of servers exceeding storage access.
- Utilized Pandas to create an automation script that monitored fluctuations in stock prices using data extraction tools, generating an easily understandable report to assist users in making prompt decisions.
- Built python framework to transform Datasets and Data tables into HTTP-serializable JSON strings.
- Used Python's built-in libraries urllib.request and BeautifulSoup modules for web scraping.
- Implemented automation script using Crontab in python to run the web crawler.
- Developed an automation script using Python and Paramiko to integrate ServiceNow with Splunk, enabling the ingestion of alerts from Splunk and the automatic creation of ServiceNow tickets.
- Used CURL for web scraping contents that cannot be scraped normally.
- Used PyUnit, the Python unit test framework, for all Python applications.
- Worked with MySQL databases, handling basic queries and writing stored procedures for both normalization and denormalization tasks.
- Provided production support for existing Power BI dashboards and other ETL processes to resolve issues. Published Power BI Desktop reports created in Report View to the Power BI service and actively participated in version control, specifically using GIT and Bitbucket.
- Worked on crawlers and scrapers for data accumulation in the projects using the BeautifulSoup library.

**Environment**: Python, PyTesseract, Matplotlib, PyUnit, Selenium, HTML5, JavaScript, HTML/XHTML, XML, MySQL server, Docker, REST API, Shell Scripting, Pandas, bs4, Linux

**Software Intern, Infosys, Hyderabad, India** *Mar 2018 - Jul 2018*

**Responsibilities**
- Created a RESTful Application Programming Interface (API) using Python, Flask, and MongoDB as the database.
- Made REST API calls to fetch data, performed validation, and successfully executed a proof of concept for a recruitment chatbot using API.ai, Pullstring, and Lex.ai. The chatbot was subsequently deployed on various social media platforms.
- Developed the backend for a chatbot to automate the handling of user job requests.
- The main objective of this project was to conduct a proof of concept to determine if a candidate's resume could be matched with the required job description using third-party APIs.
- Implemented CRUD operations in Django, which make calls to third-party APIs, extract necessary information from user resumes, and store the results in MongoDB.
- Worked on ETL process for Unstructured Data from various sources to feed the APIs for client.

**Environment**: Python 3.5, Visual Studio Code, Json, MongoDB, Flask, Rest Framework, SQL

## SKILLS

**Technologies:** Python, JavaScript, SQL, JavaScript, Docker

**Python Libraries:** Python, Django, Flask, Beautiful Soup, httplib2, Jinja2, NumPy, Matplotlib, Pickle, PyUnit, SciPy, Pandas, NumPy,

**Tools:** Git, MySQL, JSON, SQLite3, Jenkins

**Cloud:**  AWS (EC2, DNS Compliance, S3, SNS, SQS, Redshift, EKS, Athena.)

**Databases:** MySQL, MongoDB, PostgreSQL

**Packages/Miscellaneous**: Pandas, NumPy, NLP, EDA, OpenCV

## EDUCATION

**Masters in computer science, Old Dominion University**       *Dec 2023 GPA*: 3.94

**Bachelors in computer science, VNRVJIET, JNTU, Hyderabad, India**    *May 2018 GPA*:8.45