

# Bharath Kalluru

## Python + MLOps Engineer

I'm Pythonista, MLOps Engineer around 7+ years of experience in designing, developing and debugging applications using Django, Flask and Fast API using Python, Azure & AWS cloud. Established ability in deploying solutions to production for real-world problems in the cloud or on the edge.

✉ bharathkalluru12@gmail.com

📍 Dallas, Texas, USA

🌐 linkedin.com/in/bharath-reddy-716608162

📄 Leet Code: <https://leetcode.com/bharathkalluru12/>

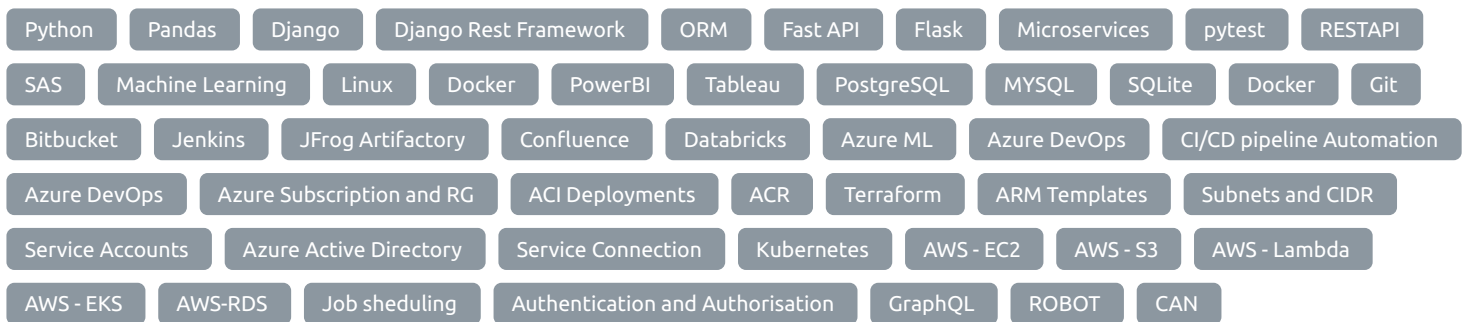
📞 +1-(682) 802-5515

🔗 bharath-kalluru.github.io

🐙 github.com/bharath-kalluru



## TECHNICAL SKILLS



## WORK EXPERIENCE

### Python Engineer

#### Toyota Financial Services

03/2022 - Present

##### Achievements/Tasks

- Worked on developing and deploying Smartreader-iDoc **Django** application which is used by TFS. This application is used during investigations, Audits reporting. Worked on Google and Microsoft NER AIPs. Also worked on OCR and Language Transition APIs.
- Worked on Authentication and Job scheduling. Experience in writing test cases. Worked on unittest, pytest, ROBOT.
- Collect, clean, and transform data using **pandas**. Perform data analysis and generate insights. Create visualizations and reports using **Tableau or Power BI**. Automate data processes and develop dashboards for **data monitoring**.
- Demonstrated proficiency in working with Controller Area Network (CAN) protocols. Extensive knowledge of **CAN message formats**, arbitration, and error-handling mechanisms. Experience in designing and implementing CAN communication networks for embedded systems.
- Created functional and CBVs that interact with **MySQL** and **Postgresql** DB using Django ORM. Experience in **JavaScript**
- Demonstrated ability to create custom **API** endpoints tailored to specific application requirements. Experienced in URL pattern configuration to map API views and endpoints, providing clear and organized routing. Strong understanding of request/response handling, including **error handling** and **status code management**, for robust API design and implementation.
- Skilled in handling authentication mechanisms, including **API keys, tokens, and OAuth**, when integrating external APIs. Proficient in data transformation using **DRF serializers** to parse and format data received from external APIs for internal use.
- Experience on **ML** and **MLOps**. Worked along with Principal ML Engineers to deploy solutions in our internal platform and Kubernetes for various use cases. Implemented fully automatic **CI/CD pipelines** using Xena (**Bitbucket, Jenkins and Artifactory**). Worked on docker containers. Experienced in working with various **DevOps** tools like Git, Docker, Azure DevOps. Experience in creating domain and certs.
- **Deployed** multiple applications. Deployed no. of ML Applications, Django, Fast, Fast API Applications. Worked on different **Azure and AWS cloud services** like Subscription, Resource Groups, ARM Templates, storages, Service Accounts, Active Directory, Subnets, CIDR, Firewalls, Inbound Port, VMs, Private Endpoints, ACR, ACI, MySQL, **Databricks, Azure ML Studio, AWS - EC2, S3, RDS, Lambda, RedShift, EKS** etc. used for resource utilisation and deployments. Deployed applications using **Kubernetes**.



## WORK EXPERIENCE

### Python and MLOps Engineer

#### Ameri Health Caritas

10/2021 - Present

Plano, Dallas

##### Achievements/Tasks

- Worked on SAS-Business-Prod **Flask API application** which is used by Ameri Health Caritas. Created APIs to import and export employee and other services related data to Azure.
- Created entirely new service called custom-scan and provided backend support for storing barcodes, photos, exporting reports for the service.
- Implemented email validation, initial account creation and update mechanisms. Implemented configurable HTTP methods in backend APIs. Designed multiple database models.
- Used various authentication mechanisms such as OAuth2, JWT (JSON Web Tokens). created bidirectional communication channels between clients and the server using the WebSocket protocol.
- Created Alerts functionality for alerting users to perform different tasks during field visits.
- Continuous engagement with global business teams on presentations and business requirements. Proposed new ideas to business.
- Got good experience with **Docker** and setting up debugging environments. Experienced in using Numpy, Pandas libraries in Python.
- Experience in **MLOps**. Implemented fully automatic **CI/CD pipelines**. Worked on docker containers.
- Worked on different **Azure and AWS cloud services** for deployments.
- Create interactive dashboards and reports using **Tableau and Power BI**. Optimize and maintain data pipelines and **ETL** processes. Collaborate with business stakeholders to gather requirements. Ensure data integrity, security, and performance.

### Python Engineer

#### Highmark Health

08/2020 - 09/2021

##### Achievements/Tasks

- Worked on ML related project called OTIF-D. This project is a KPI metric to analyze Product Availability Miss in Delivery Phase.
- Involved in Business calls and gathering requirements from different SMEs who are owning different product groups.
- Developed **Fast API** and **Django application** from scratch like building the crating virtual env, project, related applications, setting up database, handling migrations and developed back-end RESTful web services. Develop data pipelines and ETL processes using **pandas**.
- Worked with Python IDEs like IDLE, PyCharm, Visual studio code for developing and debugging Python scripts complying with PEP-8 standards.
- Created FBV and CBV by extracting data from database using **ORM**. Experienced in **MYSQL** database.
- Experience in **Azure and AWS Cloud services**.
- Design and develop visually appealing and intuitive dashboards using **Tableau or Power BI**. Implement best practices for data visualization and storytelling. Optimize performance and interactivity of visualizations.
- Conduct user testing and gather feedback for iterative improvements. Stay updated with the latest trends and advancements in data visualization.

### Python Developer

#### Genworth Financials

11/2018 - 07/2020

##### Achievements/Tasks

- Conducted data analysis and processing using **Azure Databricks** for QnA Project. This is a Search (information retrieval) and Recommendation (information filtering) system using Deep Learning.
- My roles and responsibilities include creating APIs for different searches using **Flask API**. Actively participated in **deployments**.
- Collaborated with cross-functional teams to develop solutions and resolve issues. Participated in code reviews and provided suggestions for improvements. Documented technical specifications and procedures for future reference.
- Worked on **DevOps** tools like Docker, Bitbucket, Jenkins, Artifactory.
- Actively participated in deploying the application by creating automation **CI/CD pipelines** and deployed application in different environments using **Kubernetes**.

### Python Developer

#### Nike

02/2018 - 10/2018

##### Achievements/Tasks

- Worked on FinTable where I used to write APIs to extract financial tables from Financial documents.
- Extracted data from database and Data Visualisation using **Power BI** using different idioms.
- Maintained and updated technical documentation for future reference.
- Designed and developed Python scripts for data manipulation and analysis using SQL Server and Python. Created and maintained SQL Server databases and tables. Utilized Python and **SQL** Server for reporting and visualization of data.
- Knowledge of **Azure AKS, AWS- EC2, S3, RDS, Lambda** for container orchestration. Worked on Docker, git, CI/CD
- Strong program analyzing skills, with ability to follow project standards. Experienced the full software lifecycle in SDLC, Agile methodologies



## WORK EXPERIENCE

### SAS Developer

HSBC Bank

02/2015 - 07/2016

Achievements/Tasks

- Worked on **Python, SAS**, and **SQL**.
- Gathering business requirements Design, manage and optimize data models and supporting various business programs
- Developing and modifying SAS programming based on the business requirements.
- Worked on converting SAS Programs to Python and queried data using SQL.
- Created buckets in S3 and glue **Jobs** with the details of the Code.



## PUBLICATIONS

Research Paper

### NLP Ops: A Comprehensive Framework for Secure Development and Scalable Deployment of Multifaceted LLMs in Generative AI

.



## EDUCATION

### Masters in Computer Science

Southern Arkansas University

08/2016 - 12/2017

Magnolia, GPA: 3.51/4

### Bachelors in Electronics and Communication Engineering

JNTUA

06/2011 - 12/2015

India, GPA: 6.5/10



## PERSONAL PROJECTS

Multimodal Speech and Facial Emotion Recognition System

News Article Translation and Summary using NLP

Evaluation of UNet and Resnet on COVID-19 CT Images Segmentation Dataset

Hotel Bookings Cancellation Forecasting

Python: Pizza Hut Application, Blog Application, Corona Application, To-do: Remainder Appl.

Personal Portfolio Application - <https://bharath-kalluru.github.io> (or) please scan the scanner which is on the first page of the resume. [🔗](#)



## SOFT SKILLS

Teamwork

Communication

Time management

Problem-solving