# KRISHNA MURTHY S

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## PROFESSIONAL SUMMARY

- Senior Systems Engineer with 3 years of experience as an **AWS Developer, proficient in Python**.
- Experienced in Writing **Efficient Python code and designing REST APIs, Enterprise Tools Integrations and Automations.**
- Containerization of Applications using **Docker** and deploying it in **Kubernetes** Environment and **Linux**.
- Specialized in designing resilient and **scalable cloud solutions** for **observability stacks and data management and ETL**.
- Committed to optimizing performance and enhancing user experiences through **innovative AWS solutions.**

## SKILLS

Python | Docker | Kubernetes | Helm | Power Automate Cloud Flow | Power Automate Desktop Flow | Jira APIs | Wolken APIs | Cloud | AWS | Azure| Automation | Python Backend Development | Java | Spring Boot | MySQL| PostgreSQL | Cassandra | Vector | Fluent-Bit | Data Engineering | Kafka | PySpark | Airflow | Fast API | Flask | Bash/Shell Scripting | Linux | Logging | Monitoring | Prometheus | Grafana | ECS | EKS | Cognito | AWS Lambda | API gateway | AWS IAM | Cloud Formation Template

## WORK EXPERIENCE

**Software Development Engineer**                                                                          **Sept 2024 – Present**

**Autodesk | Bangalore, India**

**Roles & Responsibilities:**

- Created an Automated RPA Workflow using PAC and PAD to scrape multiple vendor websites, which periodically reports vulnerabilities, transform the scrapped data, Convert the data into Jira Bug tickets and send Structured Notifications to slack and Outlook.
- Formulated a Python Script which runs twice everyday to fetch the Incident Tickets from Wolken for 5 Assignment Groups form multiple Metrics out of the data and send alerts on certain threshold to slack and Outlook.
- Developed Automation Pipeline to Seamlessly integrate the slack-Jira-wiki workflow. Creates private Slack Channel whenever a new EPIC is created and handles the adding of users to channel based on user story assignments, reporting and handles the notification of due date reminders and status updates, comments of the tasks, user stories and EPICs.
- Formulated an Auto Remediation solution of multiple alerts from observability systems such as Splunk, Dynatrace, catchpoint etc., by actively listening to the ServiceNow incidents created out of them and Create Jira Bug Tickets, Notify about the incidents to assignees in slack channels.
- **Automated quarterly Azure SSO app ownership validation** using AWS Lambda, Graph API, and SendGrid, reducing manual effort by **80%** and improving compliance across **500+ enterprise applications and 800 owners**.
- Worked in Migration of **ServiceNow APIs** to **Wolken APIs.**
- Created CloudFormation Templates **CFTs** to Create AWS Resources like API Gateway, SNS Topics, Lambda Functions, etc. for all the automations.

**Senior Systems Engineer**                                        April 2023 – Sept 2024

Infosys Limited |Bangalore, India

**Project Name: Cloud Migration – Firmware Upgrade**

**System | Sky - UK  Roles & Responsibilities:**

- Programmed a **Python Simulator Script** to simulate the behavior of Customer Premises Equipment (CPEs), facilitating the  testing of the Firmware Upgrade System processes thereby improving the speed and saving the 4 hours of manual testing.
- Developed an **Observability stack with Vector** to transfer logs and metrics to **red panda Kafka** which improved the log  transfer bit rate by 2 times and thereby loading them into **Elasticsearch** and **influx dB** to finally visualize the metrics in  **Grafana**.
- Containerization of applications and deployment of **dockerized containers into EKS and ECS**.
- Integration of **AWS Cognito** for authentication of Apache Php Application.
- Architected and created a cloud-native version of the product on **Kubernetes** and packaged it as a **Helm chart** for ease of  deployment, distribution, and versioning.
- Established robust Kubernetes cluster monitoring through **Prometheus & Grafana** and introduced container log aggregation  using Grafana Loki.
- POC on **Distro-less Containers** to minimize the size of the container by 80% and reduce the vulnerabilities associated with  distribution of OS by 50%.

**Systems Engineer**                                              May 2021 –March 2023

Infosys Limited | Chennai, India

**Project Name: AI-ML in Comcast MSN |**

**Comcast  Roles & Responsibilities:**

- Constructed and Maintained **10+ Python-based APIs** for seamless interaction with **Cassandra** DB, executing diverse  operations to yield optimal outcomes.
- Formulated a Python script capable of retrieving data from various sources such as **Amazon S3** and multiple client-provided  APIs. Conducted intricate calculations to produce comprehensive reports on policy usage.
- Containerized backend application using Docker and deployed as 2 container pods along with frontend in Kubernetes for  achieving consistency in deployment and scalability.
- **Dockerized** 2 python scripts and deployed them as **Cronjob Pod in Amazon EKS**.
- Authored an **ETL** script in **PySpark** to extract extensive data from multiple CSV files, each containing millions of records, stored  in S3. Executed specific transformations and seamlessly loaded the processed data back into S3.
- POC on enhancing the performance and efficiency of isolation forest ML model to 60% by refining the python script and fine-  tuning the model's Hyper parameters for anomaly detection in incoming traffic to VMs.

## CERTIFICATIONS

**AZ-900, DP-900, AI-900 – Azure fundamentals, data, and AI fundamentals**    **View Credentials**
**AWS Cloud Practitioner (AWS CLF-C02)**                                       **View Credentials**
**AWS Developer - Associate (AWS DVA)**                                        **View Credentials**
**PL-300 – Microsoft Power BI Associate**                                      **View Credentials**

## EDUCATION

**Bachelor of Engineering (B. E.)**                                 July 2016 – Sept 2020

Meenakshi Sundararajan Engineering College, Chennai (India) | **Percentage Obtained:** 77%