

# **Mohamed Khalith**

GoLang / Python Designer

# **CONTACT**

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# **EXPERTIS**

#### 1. Backend Development:

- Golang
- Python
- Atreugo
- Gir

#### 2. Cloud Computing and Deployment:

- Kubernetes
- ECS
- EC2
- o Gitlab Runner

# 3. Monitoring and Alerting:

- AWS CloudWatch
- Grafana

#### 4. Dashboard Development:

• Retool

### 5. Data Storage and Retrieval:

- DynamoDB
- MySQL
- Redis

# 6. Real-time Event Processing:

Pulsar

#### 7. Search Functionalities:

OpenSearch

### 8. Web Scrapping:

- Selenium
- Chromedp
- Puppeteer

# **PROFILE SUMMARY**

Dynamic Software Engineer with a proven track record in crafting and maintaining robust, scalable software solutions utilising an expansive technology stack. Proficient in Python GoLang, and microservices architecture, with expertise in leading deployment strategies, optimising performance, and implementing monitoring solutions. Adept at designing fault tolerant data storage systems, caching mechanisms, and real-time event processing.

# **WORK EXPERIENCE**

Software Development Engineer

September 2021 - Present

# Freightify I Chennai Global Rate Sync

In my capacity as a Software Development Engineer, I have spearheaded the design and implementation of a resilient application strategically centered on the aggregation of freight rates data from a heterogeneous array of systems. Harnessing the power of Golang, Pulsar, Redis, and DynamoDB, I meticulously architected a sophisticated backend infrastructure complemented by purposebuilt worker services.

#### **Technical Expertise:**

- Experienced in developing backend services using Atreugo, Gin with Golang
- Proficient in developing microservices-based applications in Python and Golang, following industry best practices for scalability and maintainability.
   Experienced in deploying microservices architecture on Kubernetes and ECS for efficient management
- Skilled in setting up comprehensive monitoring and alerting systems using AWS CloudWatch, reducing mean time to detect and resolve issues. Proficient in creating dashboards in Grafana, configuring Slack and email notifications for timely alerts. Also, experienced in developing Retool dashboards for internal applications to streamline data visualisation and insights
- Developed resilient and scalable applications using Golang's efficient concurrency model and performance optimisation techniques.
- Designed and implemented highly scalable and fault-tolerant data storage solutions using DynamoDB and MySQL
- Integrated Redis as a caching layer to optimise data access and improve application performance.
- Leveraged Pulsar for real-time event processing and data streaming, ensuring efficient handling of high volumes of data.
- Proficient in integrating OpenSearch to provide advanced search functionalities within applications.

# **EDUCATION**

#### **Course Studied**

Sri Manakula Vinayagar Engineering College

**Ccourse : Electronics & Communications Eng.** 

CGPA - 7.3 2016 - 2019

Amalorpavam Higher Sec. School

Course: HSC

Percent - 88 2015 - 2016

Amalorpavam Higher Sec. School

Course: SSLC

Percent - 95 2013 - 2014

#### Python Developer

# **Tata Consultancy Service I Chennai**

#### **Data Processing System**

Results-oriented Python Developer with a strong foundation in web development, data scraping, data preprocessing, and microservices architecture. Proficient in leveraging a range of technologies including Selenium, Pandas, Flask, RabbitMQ, Matplotlib, MySQL, and Docker to design, develop, and deploy efficient and scalable applications. Adept at translating business requirements into practical technical solutions and delivering high-quality code.

2019 - 2021

- Proficient in utilizing Pandas for efficient data preprocessing, cleaning, and transformation, ensuring high data quality for analysis and modeling
- Employed a range of automation tools, including Python libraries like PyAutoGUI and Pywinauto, as well as the Automation Anywhere platform, to automate tasks across various contexts, achieving higher efficiency and accuracy

# <u>Proof of Concept - Intelligent Data Retrieval and Generation with</u> Azure Al Search and RAG

Initiated and executed a Proof of Concept (POC) project for an Intelligent Data Retrieval and Generation system, successfully integrating Azure AI Search with multiple data sources. The project aimed at validating the feasibility and effectiveness of utilizing Azure AI Search and the RAG (Retrieval-Augmented Generation) model for streamlined data retrieval and structured answer generation.

#### Technical Expertise:

- Developed the app server using flask, serving as the integration code that coordinates interactions between information retrieval and the Language Model (LLM).
- Utilized LangChain for efficient workflow coordination, integrating seamlessly with Azure AI Search and streamlining the inclusion of Azure AI Search as a retriever in the workflow.
- Engineered the information retrieval system, responsible for providing the searchable index, query logic, and query responses.
- Integrated the Language Model (LLM) into the workflow, allowing it to receive the original prompt and results from Azure Al Search.
- Developed code to handle the analysis of search results and formulate contextually relevant responses, leveraging the capabilities of ChatGPT or other LLMs.

# **HOBBIES & INTERESTS**

- Exploring New Technologies: Passionate about staying up-to-date with the latest advancements in the tech world. Regularly read tech blogs, attend webinars, and experiment with new tools and frameworks.
- Anime Enthusiast: An avid anime watcher who enjoys a variety of genres. Love discussing anime theories, characters, and storylines with fellow enthusiasts. Always on the lookout for hidden gems and trending series.
- Exploring GPT Possibilities: Intrigued by the potential of GPT technology and its applications. Dedicated to learning and exploring new possibilities in GPT-based systems, discovering innovative ways to leverage this technology.