

Summary

IT Professional with 8+ years of experience in end-to-end IAM solution integration using WSO2, IoT home automation, and cloud architecture. Proficient in microservices, serverless computing, and threat analytics, delivering scalable, secure, and innovative solutions across diverse industries.

Technical Skills

- **Programming Languages:** Python, Linux Scripting, Go, C, Rust
 - **Databases:** MySQL, SQLite, MongoDB, Cassandra, PostgreSQL, dynamo Db
 - **Version Control:** Git, Bitbucket, SVN, Github Actions
 - **Frameworks:** Flask, Django, pytest, Streamlit, Scrapy, panda, numpy, asyncio, Fast API
 - **Protocols:** REST, SOAP, MQTT, Matter Protocol, HTTP, Socket
 - **DevOps & Tools:** Docker, Kubernetes, Jenkins, Terraform, Prometheus, Grafana
 - **Cloud Platforms:** GCP, AWS, Azure
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Professional Experience

Lead Cloud Developer | Panasonic

September 2021 – December 2024

- Designed and implemented **MirAle IoT solution**, integrating the Matter protocol for seamless home automation.
 - Developed microservices for device and home management, achieving a **20% improvement in system performance**.
 - Integrated **IAM services** for multi-tenant security, enhancing platform reliability.
 - Orchestrated device firmware management (OTA/FOTA) using serverless and microservice architectures.
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October 2020 – August 2021

- Engineered microservices for **Helix Cloud SIEM**, supporting advanced threat analytics and real-time log monitoring using **Prometheus** and **Grafana**.
 - Automated error detection processes, reducing incident response time by **30%**.
 - Developed a cost monitoring tool leveraging **AWS CloudWatch** and **Boto3**, optimizing cloud expenditure.
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Software Developer | Sierra Circuits

June 2019 – September 2020

- Created a **PCB design plugin** for Kicad, automating design validations and saving **15 days of manual work**.
 - Developed 2D rendering APIs for PCB designs, streamlining the online order process.
 - Built a web platform integrating **Flask** and **WxPython**, enabling detailed design analysis through OpenCV.
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Senior Technology Consultant | AEQUM India Pvt Ltd

June 2016 – June 2019

- Developed microservices for retail POS systems, synchronizing data between devices using **UART protocols**.
 - Built deployment pipelines using **Jenkins** and **AWS CodePipeline**, reducing deployment time by **40%**.
 - Designed a document processing platform utilizing **OpenCV** and **TensorFlow**, automating data extraction for key clients.
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Projects

MirAle Platform

- **Tools:** Python, GoLang, Flask, MQTT, AWS, Go, kafka, kinesis, bacnet
- Designed and implemented an IoT platform that connects and controls smart home devices such as air conditioners, smart TVs, and IR blasters.
- Integrated third-party IoT devices using APIs and SDKs, ensuring compatibility and seamless user experience.

high data volumes and real-time device communication via the MQTT protocol.

- Optimized cloud resource utilization by automating deployments and scaling through AWS services, resulting in a 15% cost reduction.
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Helix XDR (Extended Detection and Response)

- **Tools:** Python, Django, Celery, Redis, AWS
 - Played a key role in enhancing Helix, a cloud-based extended detection and response (XDR) solution, to improve threat detection capabilities.
 - Developed RESTful APIs using Django REST Framework (DRF) to streamline data ingestion from multiple threat intelligence sources.
 - Automated monitoring and alerting systems using Prometheus and Grafana, providing real-time visibility into system performance and security events.
 - Implemented Celery for asynchronous task management, reducing data processing time by 25% and improving system responsiveness during high traffic.
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99POS Retail System

- **Tools:** Python, Flask, SQLite3
 - Developed a comprehensive POS solution tailored for retail environments, focusing on sales, inventory, and operations management.
 - Implemented RESTful APIs to support real-time billing and inventory updates, enabling seamless multi-store synchronization.
 - Integrated SOAP-based services to connect with external partner systems, ensuring smooth data exchange and business process alignment.
 - Provided detailed analytics and reporting modules using Matplotlib, giving store managers actionable insights to improve decision-making.
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PCB Design Automation for Sierra Circuits

- **Tools:** Python, Kicad, WxPython, OpenCV, Flask
- Created a custom plugin for Kicad that automated PCB design validation, reducing errors in manufacturing and cutting design validation time by 70%.
- Developed APIs for 2D PCB rendering, allowing customers to visualize and verify their designs before production, reducing rework and material wastage.
- Built a web-based interface using Flask and WxPython, integrating OpenCV for advanced image analysis to ensure design compliance with manufacturing standards.

- **Tools:** Python, OpenCV, TensorFlow, Tabula, AWS
- Developed a cloud-based document processing platform that extracts and processes data from diverse document formats such as PDFs, scanned images, and retail invoices.
- Utilized OpenCV for image preprocessing and TensorFlow for document classification and data extraction.
- Automated workflows for clinical and retail data analysis, delivering a 60% efficiency gain for clients such as Midas Safety and Sun Pharmaceutical.
- Provided real-time dashboards and reporting features using AWS QuickSight, enabling clients to track and analyze their data effectively.

Education

PG Diploma in Embedded System Design | CDAC Bangalore | *August 2015*

B.E. Electronics & Communication | RGPV Bhopal | *June 2014*