

Mervin Jones

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SUMMARY

Experienced Cloud Engineer with over 2 years of expertise in designing, deploying, and managing GCP solutions. Adept at infrastructure automation using Terraform, with a strong focus on GCP Confidential Computing, Post Quantum Cryptography, and certificate management. Proven track record in architecting and delivering large-scale cloud migrations, developing high availability solutions, and implementing CI/CD pipelines. Demonstrated ability to design and manage automated email notification systems integrated into certificate lifecycle management. Strong analytical and problem-solving skills, with excellent communication and collaboration abilities. Bringing cybersecurity expertise developed within the Chief Security Office (CSO).

SKILLS

Backend Development: Django (Python), FastAPI (Python), Flask (Python), API Development, Cloud Functions, Google APIs

Cloud Computing: Google Cloud Platform (GCP), Azure

Security and Cryptography Tools: EJBCA, Secunet, CMS (certificate Management System), Penetration testing.

DevOps and Automation: YAML Workflows, Terraform (IaC), GitHub Actions (CI/CD), GitHub, Bitbucket

Project Management: Agile (JIRA), Technical Documentation, Architectural Decision Records (ADR).

Other Tools and Technologies: Docker, Kubernetes, HTML, Tailwind CSS, Postman,

EXPERIENCE

Systems Engineer

Tata Consultancy services

October 2021 – Present, Chennai

- **CertHub (Certificate Management in GCP):** Automated certificate lifecycle management using serverless systems for GCP components such as GSM, load balancers, and Apigee. Implemented CertManager for GKE and designed a robust email notification system for certificate management.
- **PKI Deployment:** Deployed EJBCA and Secunet in Google Kubernetes Engine and OpenShift environments, conducted proof of concepts on their functionalities.
- **GCP Confidential Computing in GCP:** Published Architectural Decision Records (ADR) for Confidential VMs and Kubernetes Engine. Deployed and tested applications in Confidential VMs and GKE, enabling services for banking environments. Deployed Ubiquitous Data Encryption (UDE) services for strictly confidential data, ensuring encryption is applied to data in use, at rest, and in transit.
- **Post Quantum Cryptography (PQC):** Tested post quantum cryptographic solutions, exploring adaptation strategies to future-proof systems against potential quantum computing threats.
- **Programming and Deployment:** Utilized Python and Google APIs, deployed applications via GitHub Actions with YAML workflows. Managed GCP resources using Terraform, pipelined through GitHub Actions.
- **Client Engagement:** Delivered tailored cloud infrastructure and security solutions for a leading global bank, focusing on enhancing security measures and compliance.

CERTIFICATIONS

Google Cloud Certified Associate

EC-Council Certified Ethical Hacker

Microsoft Certified: Azure Fundamentals

Microsoft Certified: Security, Compliance, and Identity Fundamentals

EDUCATION

Bachelor of Engineering (BE)

K. Ramakrishnan College of Engineering (Anna university) · Electronics and Communications Engineering · 2021 · 8.45

PROJECTS

Email Notification System for Certificate Management

Tata Consultancy services (Global Bank)

- **Overview:** Designed and implemented an automated email notification system API integrated into the certificate lifecycle management process within CertHub GCP.
- **Technologies Used:** Python, FastAPI, Google APIs, Cloud Functions, Cloud Storage, Secret Manager, Pub/Sub, GKE (traffic via Istio, CertManager, Postfix MTA).
- **Impact:** Improved proactive communication with stakeholders, reducing the risk of certificate-related issues and enhancing overall security posture.
- Spearheaded the creation and deployment of an automated email notification system API integrated with CertHub, resulting in a 50% reduction in certificate-related incidents and improved proactive stakeholder communication.

BYTEWHIM

Independent Project Developer · bytewhim.com/

- **Project Overview:** BYTEWHIM is a dynamic blogging platform that combines the structured world of technology with creative spontaneity. It allows users to create, manage, and share blog posts with an emphasis on innovative and unique approaches.
 - **Technologies Used:** Django, HTML, Tailwind CSS.
 - **Impact:** Offers a modern platform that encourages creative expression and engagement through blogging, bridging technology with artistic spontaneity.
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