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# Brian Kepha

## Cloud Engineer

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I architect and implement robust cloud infrastructures with a focus on scalability, security, and resilience. Leveraging deep AWS expertise, I design solutions that optimize deployment workflows while maintaining high availability and peak performance. I implement infrastructure as code practices and automate CI/CD pipelines to streamline application delivery. My expertise spans containerization, networking, security implementation, and cost optimization strategies. I continuously evaluate and integrate emerging cloud technologies to enhance system reliability and operational efficiency. Through strategic cloud initiatives, I align technical solutions with business objectives, ensuring measurable value delivery and sustainable growth.

### Work Experience

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**Cloud Support Engineer**                    **Amazon Web Services**                    **May 2024 - Present**

- Set up monitoring for performance and integrity of critical data storage systems for 50+ AWS enterprise customers as well as implementing robust backup solutions and high availability architectures that achieved over three 9s of availability and uptime across an aggregate of 2PB of mission critical data.
- Set up custom processes that flagged data bottlenecks affecting 15 customer environments , optimized data retrieval processes that reduced query response by 8 seconds on average saving teams 120 man hours in wait times.
- Implemented data security enhancement strategies for 30+ enterprise customer deployments enabling zero data loss incidents going forward and reducing recovery time objectives from an average of 4hrs to just under 45 minutes.
- Ensured AWS customer deployments adhered to data protection best practices and compliance standards(GDPR , HIPAA, SOC 2, FIPS 140-2 and 3) across 40+ audited environments achieving 100% compliance for these customers.
- Worked with Enterprise AWS customers to design and deploy advanced data encryption ,access control and continuous monitoring systems that detected and prevented 10+ potential security incidents preventing loss of \$50 million worth of critical data assets.
- Developed and maintained 35+ comprehensive disaster recovery plans tailored to customer-specific requirements, with documented recovery procedures covering 500+ critical data systems.
- Collaborated with customers to perform root cause analysis on 80+ data-related incidents, resolving underlying issues in data management systems and reducing recurring incidents by 75% through implementation of preventive safeguards.
- Designed and tested business continuity plans for 20+ customers that minimized downtime to under 1 hour during simulated catastrophic failures, preventing estimated revenue loss of \$2M per incident and ensuring continuous access to essential business operations.
- Led my team of 18 engineers in automating our internal processes and spearheaded the central documentation of tribal knowledge in a central repository to eliminate fragmentation. This project saw 3 times engineer productivity improvement enabling engineers to alleviate customer pain much quicker reducing further customer pain.

**Freelance Cloud Engineer**                    **Fiverr**                    **July 2023 – April 2024**

Nairobi, Kenya

- Designed and executed a cost-efficient cloud architecture for a high-traffic e-commerce website by leveraging core AWS services including Amazon S3 for storing static content, integrated seamlessly with CloudFront for content delivery acceleration. This strategic utilization led to a notable 30% reduction in infrastructure expenses while concurrently boosting website speed by an impressive 8%.
- Developed and maintained AWS cloud security best practices and protocols by leveraging core AWS services such as AWS Identity and Access Management (IAM) policies and Trusted Advisor, resulting in zero security breaches so far and a 15% increase in customer trust.
- Researched and recommended new cloud technologies and services, resulting in the adoption of a cloud-based monitoring tool, datadog that improved infrastructure visibility by 17%.

- Collaborated cross-functionally with IT teams, stakeholders, and business units to assess existing data structures, define migration requirements, and design efficient strategies within the AWS ecosystem, which resulted in a 30% improvement in data accessibility and security post-migration.

|                                   |  |                            |
|-----------------------------------|--|----------------------------|
| <b>Web Designer</b>               | <b>Silver Spark Africa</b><br>Nairobi,Kenya  | <b>Jan 2021 - Nov 2022</b> |
|                                   | <ul style="list-style-type: none"> <li>Improved mobile engagement by 40% through responsive design implementation.</li> <li>Increased user engagement metrics by up to 15% through UX/UX optimizations over a 6 month period.</li> <li>Reduced website bounce rates by up to 15% by establishing a systematic maintenance protocol that included weekly dependency updates and performance monitoring, leading to significant improvement in average page load times.</li> </ul>   |                            |
| <b>Technical Support Engineer</b> | <b>Homa Bay County Hospital</b><br>Homa Bay, Kenya   | <b>April - August 2019</b> |
|                                   | <ul style="list-style-type: none"> <li>Safeguarded the hospital's operations by managing robust backup and recovery systems, ensuring routine backups and swift data restoration in critical situations. This proactive management resulted in a remarkable 98% system uptime, minimizing downtime by 15% during system failures ensuring uninterrupted healthcare services by maintaining continuous access to crucial systems and data.</li> <li>Enhanced hospital operations by monitoring and assessing the performance and security of the IT systems, generating comprehensive reports on system utilization, bolstering security measures, and optimizing performance, resulting in a 15% increase in system efficiency and a 25% reduction in security vulnerabilities.</li> <li>Delivered exceptional end-user support by swiftly resolving hardware, software, and network issues, promptly attending to user requests, troubleshooting problems, and providing comprehensive technical guidance to employees, resulting in a 30% reduction in user-reported issues and a more productive work environment.</li> </ul> |                            |

## Education and Certifications

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|--|----------------------------|
| <ul style="list-style-type: none"> <li><b>AWS Re/Start,Azubi Africa</b></li> <li><b>BSc. Computer Technology</b>, Multimedia University of Kenya.</li> </ul> | <b>Feb 2023 - May 2023</b> |
|  | <b>Aug 2016 - Dec 2020</b> |

## Skills

- Languages: Java,Bash.
- Technologies: AWS, Grafana,Prometheus,Linux, Terraform,CDK, Docker, Git, Cloudformation, YAML, Ansible, Lustre
- Other: Agile, Continuous Delivery, Networking, DNS, Scripting and Automation, Logging & Monitoring, Observability, Disaster Recovery, Apache Iceberg, S3 Tables.

## Projects

- Partnered with senior leadership to design and execute a cross-site technical training program for the S3 Tables launch. Upskilled engineers at three global locations on Apache Iceberg fundamentals and proprietary service architecture, ensuring Day 1 readiness for AWS customer support.
- I led a critical intervention for a high-value AWS Enterprise client , coordinating 4+ internal and external teams to fix a production-blocking bug. Action saved the client significant cost by avoiding a postponed global product rollout.

## Other Sections.

- Certifications and Courses** - AWS Certified Machine Learning Specialty , AWS Certified Solutions Architect Professional, AWS Certified DevOps Engineer Professional, AWS Certified Solutions Architect Associate, AWS Certified SysOps Administrator Associate, AWS Certified Data Engineer Associate, AWS Certified Developer Associate, AWS Certified AI Practitioner, Linux Networking and Administration, Linux Essentials for Cloud Technicians.
- Achievements** - I have received the Security Champion, Rising Star, All rounder and finally the Most Valuable Player Award at AWS for my exemplary performance within my team.