SHALEN NAIDOO

Senior Cloud Architect/Engineer and Platform Lead

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Ambitious Cloud professional with deep hands-on experience specializing in architecting, automating, securing, optimizing and scaling mission critical deployments over large AWS native and Hybrid Cloud infrastructure.

INDUSTRY EXPERIENCE

Platform Engineer/Architect - Data Science & Engineering
Trafigura Services

09/2023 - 09/2024   *JHB, South Africa*

Achievements/Tasks

- Supported the ongoing design, development and management of an Trafigura's advanced Data Science and Engineering Analytics platform.
- Full ownership of solution designs; architecture design, solution development and implementation of AWS cloud solutions for adoption according to business needs including DevOps best practices.
- Migration of legacy systems/solutions to cloud native solution deployments
- Support the data and analytics requirements of front office traders, research analysts and data scientists using latest machine learning innovations and methods
- POC, MVP and full CICD implementation of AWS native solutions to solve business needs.
- Bi-directional sync implementation from On-prem shared drive to our S3 platform landing zone for near real time syncing of artifacts for data feed analysis and processing.
- AWS-XRay integration into platform for advanced data feed error analysis, diagnostics and troubleshooting
- Redshift V2 editor platform implementation - introduced new tool for entire DSE team to transition from legacy method of querying data (DBeaver). Allowed for faster query execution, analysis, auditing amongst other copious productivity benefits for the team.
- Trafigura Network Arch Mapping - crafting of architectural diagrams mapping entire network flow of Trafigura including firewalls, VPNs, DX connections to AWS, DMZ zones and On-Prem connections. Provided indepth understanding of org-wide networking and collaboration with senior level IT. This gave a visual depiction for several stakeholders of diff levels ie. Data Eng, Data Scientists, Leads, IT Sec, etc.

Contact : Sagree Chetty - Sagree.Chetty@trafigura.com

TECHNICAL SKILLS

AWS Services	DevOps/DevSecOps	ELK

Kubernetes · Docker · CICD · Git · Helm

Iaac/Terraform/CloudFormation · Cybersecurity

Python · Java · REST API's · Linux · Agile

AWS Architect · Cloud Data Storage and Backup

SOFT SKILLS

Self-motivated with a profound commitment and determination towards my work.

Trained in conducting research, analyzing and interpreting data to aid in decision-making efforts.

Customer service.

Time management.

Willingness to learn.

Communication (written and verbal).

Collaboration.

Strong drive to learn and develop new skills.

Passion for problem-solving.

Proactive approach to identifying problems, performance bottlenecks, and areas for improvement.

PROJECT PORTFOLIO

AWS | AI-Powered Book Summary Twitter Bot with AWS and OpenAI (2023)

- The AI-Powered Book Summary Twitter Bot uses AWS Lambda, S3, Systems Manager Parameter Store, and CloudWatch, with OpenAI's API to generate book summaries.
- The Lambda function fetches a random book title from S3 and generates a summary using OpenAI's API, then crafts a Tweet and posts it on Twitter. This project automates information dissemination and promotes literature globally.
- The TwitterBot can be viewed in action over at https://twitter.com/shalen_dev
- [For more info on all projects, please kindly visit my portfolio site or GitHub repo referenced above.]

INDUSTRY EXPERIENCE

⊙ **Computer Science Dept. Advisory Board member**
University of Zululand

06/2023 - 03/2025

Responsibilites

- Was nominated and requested to serve on the University of Zululand's Computer Science Departmental Advisory Board as a member with respected knowledge and experience to help improve University programs, curriculum and delivery strategies as well as the following:

- To provide input and guidance concerning aspects related to the curriculum (including the admission and assessment requirements), external needs of programmes, professional profiles, relevance and research pointers.

- To contribute to the setting up of academic standards for the learning programmes concerned.

- To provide external expert and end user input to ensure quality and standard in the delivery of programmes and projects.

- To advise on the professional profile of graduates and diplomats.

- To advise on new industry and professional trends and standards.

- To advise on continued professional development (CPD) of staff.

- To advise on availability and relevance of laboratory equipment and infrastructure required for all programmes and curriculum.

- To advise the University in the development of co-operative education/Work Integrated Learning partnerships.

- To receive comments and input on programme-specific and non-programme spec issues, from specialised internal parties and units dealing with quality, curriculum design and development, academic support and engagement.

Contact : Karen Enslin - EnslinK@unizulu.ac.za

PROJECT PORTFOLIO

AWS | Automated Docker deployments on ECS with CodePipeline

- For updates to my portfolio site I created a pipeline using AWS native services to help streamline deployments.

- The solution comprised of using ECS, ECR, CodeBuild and CodePipeline AWS services for automated code changes to a React front-end.

AWS | Secure, efficient and responsive CI/CD Pipeline for scalable Terraform Deployments (2023)

- This DevOps based project utilizes CodeCommit, CodeBuild, and CodePipeline to create a secure and automated CI/CD pipeline for Terraform code deployment using AWS native tooling.

- An S3 bucket and DynamoDB table are used for consistent and accurate state management. A CloudWatch Event rule triggers the pipeline automatically on Terraform code updates, resulting in a fully automated, scalable, and secure deployment of Terraform code.

Android App | PocketIncubator (2018)

- Developed an Android application as part of my Final Year Undergraduate project conceptualizing the idea of an Incubator in your Pocket.

- The app was designed to be a platform to help connect small startups with Incubators and/or possible Investors.

- This was also developed using Java and AndroidStudio as well as Firebase for the DB storage.

Android App | First Aid Exam Papers (2016)

- First Aid Exam Papers is an Android app designed to support Matric (Final Year) High school students across South Africa by turning exam preparation into a streamlined, user-friendly experience with a trove of study resources at their fingertips.

- This tool provides a library of past examination papers for all NSC subjects, a split-view feature for concurrent exam and memo viewing, and the option to download resources for offline study.The app stands out with its provision of comprehensive, free study guides across subjects, effectively becoming a one-stop solution for exam preparation and past reference material.

- Created using Java and AndroidStudio, First Aid Exam Papers underscores my commitment to harnessing technology for education.

Android App | Unizulu Mobile (2016)

- Unizulu Mobile is an Android application built to streamline and redefine the student experience at the University of Zululand. The application serves as a personal campus companion, providing a seamless portal to vital campus information and resources. Mobile App and none exists at the moment of writing.

- It boasts a variety of features including a comprehensive directory with a custom Google Maps depiction of the campus, Course and Exam timetables, secure access to Fee and Academic records, a Bird's-Eye view of the campus for easy navigation, Library database access for academic needs, and a reliable information hub for campus updates, events and news.

- This was developed using Java and AndroidStudio and Unizulu served to solve a real-world challenge while prioritizing a user-friendly experience to effortlessly navigate their academic journey. It was the first of it's kind as the University did not have an existing mobile app.

INDUSTRY CERTIFICATIONS

ISC² Certified in Cybersecurity (CC) (2023 - 2026)
https://www.credly.com/badges/08f6ff71-feda-4262-8d23-ed13e97a6ce7

INDUSTRY EXPERIENCE

○ **Cloud Engineer (Lead)**
Standard Bank South Africa (SBSA)

07/2021 - 12/2022   *Johannesburg, South Africa*

┐ *Responsibilites*

- Lead Cloud Engineer and Cloud Engineering feature owner for the deployment and migration of SBSA's Cloud native ATM solution, Renovite - poised to be SA's first. This was a Kubernetes based solution deployed on EKS using Terraform/Terragrunt and a Hybrid DNS setup. Tasked with also selecting and employing various other AWS services to faciltate the solution deployment.
- Deployment of the solution, designing reference architecture, CICD pipelines and providing input to the DevOps team for the implementation of codified stacks to meet the needs of the applications.
- Providing guidance on most aspects of cloud infrastructure offerings including the design and implementation of highly-available, cost efficient, fault tolerant and scalable cloud systems.
- Includes delivery of multiple Cloud architecture patterns and implementations to drive customer outcomes.
- Analysing application portfolios, identifying dependencies and common infrastructure platform components and assessing migration feasibility.
- Integrating existing cloud infrastructure or network environment with the corporate infrastructure/data centre environment according the banks guardrails.
- Designing and implementing cloud solutions based on architectural best practices.
- Providing hands-on technical coaching to accelerate Cloud learning across the Cloud Engineering portfolio, providing expertise and showcasing the design and implementation of designs based on best practices acting as a catalyst for technical development across the team.
- Supporting a culture of continuous improvement and fostering innovation within the function and team.
- Collaborating with and influencing stakeholders across the IT Business Unit as well as Cloud Security to ensure that services offered are relevant and efficient.

Contact : *Human Capital Shared Services -*
             HumanCapitalSharedServices@standardbank.co.za

INDUSTRY CERTIFICATIONS

AWS Certified Data Analytics – Specialty (2022 - 2025)
https://www.credly.com/badges/9f9b43b5-eb21-467a-a72f-06bfa3515b0c

AWS Certified Security - Speciality (2022 - 2025)
https://www.credly.com/badges/b58019c7-a9cf-4e81-aa85-9b39b95cd2a0

AWS Certified Advanced Networking - Specialty (2022 - 2025)
https://www.credly.com/badges/b58019c7-a9cf-4e81-aa85-9b39b95cd2a0

AWS Certified Solutions Architect – Professional (2021 - 2024)
https://www.credly.com/badges/a30b95fd-6cef-473c-a016-1f61c31ca0f3

AWS Certified DevOps Engineer – Professional (2021 - 2024)
https://www.credly.com/badges/74cb331e-e79d-4b85-a51c-d4cedc9b106c

AWS Certified Developer – Associate (2020 - 2023)
https://www.credly.com/badges/7fb653c0-a13a-4104-bf61-1091c4313c98

AWS Certified Solutions Architect – Associate (2020 - 2023)
https://www.credly.com/badges/ffa72d4c-9f47-40c1-b567-1fe08c1ffb12

Cisco Certified Network Associate Cyber Ops (CCNA) (2019 - 2023)
https://www.credly.com/badges/a01a069a-9355-4e51-ba79-6ed87baf6d99/

Datacamp Intermediate Python for Data Science (2019)
https://www.datacamp.com/statement-of-accomplishment/course/54f2faa3284a5d3b9e2fc646e06fbf16f90003fd

INDUSTRY EXPERIENCE

Cloud Support Associate (Deployment/DevOps profile)
Amazon Web Services (AWS)

12/2019 - 06/2021   *Cape Town, South Africa*

Responsibilites

- Formed part of the Deployment profile/team supporting 14 AWS Cloud services with a main focus but not limited to IaaC, Container and CI/CD related services.
- Experience working with +250 AWS customers including AWS partners on critical and complex customer problems including production level issues that span multiple AWS services.
- Troubleshooting application deployments, recreating customer deployment issues, diving deep to resolve problems at their root, looking for failure patterns and suggesting fixes.
- Applying advanced troubleshooting techniques to provide unique solutions to customers' individual needs.
- Partnering with internal AWS teams to help reproduce and resolve customer issues.
- Leveraging customer support experience to provide feedback to internal AWS teams for service improvement.
- Driving customer communication during critical events and production deployments.

Contact : AWS HR Shared Service Centre - 0800 988 812

Data Science Internship - DSIDE Programme
CSIR(Council for Scientific and Industrial Research)

06/2018 - 07/2018   *Pretoria, South Africa*

Responsibilities

- Participated in the DSIDE (Data Science for Impact and Decision Enablement) internship programme.
- Tasked to analyze hospital shift data using various python data science libraries to determine the current state of hospital shift allocation and develop a system to ensure fair/equitable staff shift allocation.
- Researched Machine Learning models to optimize shift allocation.
- Developed a Dashboard for the client visualizing insights extrapolated from the data acquired and analysed.
- https://dsideweb.github.io/people/2018-2019/

Contact : Dr. Vukosi Marivate - vmarivate@csir.co.za

EDUCATION

BSc. Honours Computer Science
University of Zululand

2019 - 2019

Distinctions
- Advanced Distributed Database Techniques and Security for WS and SOA.
- Software Defined Networking Theory and Application.
- Advanced Software and Distributed-Computing Techniques.

BSc. Computer Science and Mathematics
University of Zululand

2015 - 2018

Distinctions
- Data structures and Algos.
- Computer Communications and Networks.
- Database and Information Mngmt.
- Dynamical Systems
- Further Discrete Mathematics
- and 4 more.

National Senior Certificate (NSC)
John Ross College

2010 - 2014

Distinctions
- English
- Life Sciences
- Accounting
- Life Orientation
- Mathematics (78%)
- Afrikaans FAL (77%)