

KEERTHANA MURALIDHARAN

Seasoned AWS Developer with Python and DevOps hands on experience

AWS | Python | CICD | Terraform | Docker | Travis CI | Duns & Bradstreet | PySpark | SQL | Tableau

AWS CLOUD ENGINEER



PROFESSIONAL EXPERIENCE

Larsen and Toubro Infotech Limited

Senior AWS Engineer

Feb '20 - Present

Veolia Water Technologies

Paris, FR

Veolia Water, is the water division of the French company Veolia Environment and the world's largest supplier of water services.

AWS Setup & Architecture

- Worked in **5+** projects daily & recommended the best technical solutions to migrate the application to AWS and implemented successfully.
- Created the **architecture** using Miro and created the **Cloud Formation** template to facilitate deployment using **Travis CI**.
- Built an architecture that aims to migrate two flows to the AWS platform - File Transfer & File Merge. Files are incoming from **Servicemax** - cloud-based software platform designed to improve the productivity.
- Minimizing the amount of administration related to sharing metadata across different accounts using Automated Reporting in **Amazon Athena**.
- Built **Lambda based infrastructure Terraform** project to manage a **DUNS** local database solution to assure security.
- Improved this infrastructure to have logical separation between multiple environments (**development, quality assurance, production**) in each stacks of this architecture.
- **Dun and Bradstreet** helps in transforming the unstructured data into structured data which is helpful in generating business information reports.

Cloud Management & Troubleshooting

- Deployed the **Elastic Load Balancer** & configured **HTTPS certificates** & managed scalable & highly available systems on **AWS API Gateway**.
- Setup a **VPC environment** & designed an effective backup strategy depending upon client requirements.
- Uploading the scripts from **Github** directly into **Travis CI**, deployments are performed.
- Superintended **production applications** on AWS & initiated corrective depending on customer feedback & surveys.
- Complied with the established **software development** life cycle methodology to deliver effective solutions.

Deployment

- Used **AWS SAM** as deployment framework for AWS Lambda functions. **Terraform** is used to deploy automatically the DNS certificate.

User Authentication & Access

- Generated **SSH authorization keys** for increasing the security level for safe connection.
- Employed **IAM** to create & control AWS users & groups access to AWS services and resources.

Monitoring

- Email alerts are sent using AWS SNS to the appropriate users.
- All events and logs are captured using CloudWatch. API activity triggers are recorded using CloudTrail.
- Stats are queued periodically using AWS SQS.

Stakeholder Management

- Collaborated with **onsite/offshore development resources** from delivery partners to develop & test integrated solutions.
- Maintaining an updated list of suppliers and clients (especially names and addresses). Be consistent throughout all corporate apps - generating cross-reports for management & getting strategic data (parent company, financial scoring, ...)
- Coordinated with a team of **5 Developers** to initiate Advance procedures, triggers, functions, Indexes & exception handling.
- Liaised with the **QA team** to optimize queries by creating various clustered and non-clustered indexes.

Data Engineer

Oct '19 - Jan '20

Viacom, INC

New York, US

Viacom is one of the world's leading producers of premium entertainment content that connects billions of people in nearly every country in the world

- Using the extracted data, we created tables such as ContentData, SeriesData, SeasonData, EpisodeData and DashboardData in the **Azure Databricks**.
- Wrote python function to store these tables automatically in Parquet format in AWS S3 bucket.

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SUMMARY

2.5+ years experienced AWS Cloud Developer with proven track record in Development & Design for Cloud technologies in IT Infrastructure functions. Adept at developing solutions, procedures & service standards for project transformation and business excellence. Proficient in designing effective solutions for cloud deployment, transitioning multiple projects & ensuring seamless delivery of services.

KEY SKILLS

• Cloud Computing • Requirement Gathering • AWS Setup & Architecture • Agile Methodology & Waterfall Methodology • Cloud Setup & Management • Troubleshooting • User Authentication & Access • Automation • Stakeholder Management • Load Balancing & Cloud Deployment • Security • Requirement Analysis

TECHNICAL SKILLS

• **Cloud:** Amazon AWS (Computing Services, Storage Services, Database Services, Security and Identity Services: IAM, KMS, Networking Services, Management Tools)
• **Tools, Services & Database:** MySQL, NoSQL, Neo4J, Oracle, PL/SQL, RDBM, Gremlin, Duns & Bradstreet, Pycharm, Putty.
• **Languages:** Python, PySpark, C++.
• **DevOps Tools:** Jenkins, Terraform, Docker, Travis CI.
Visualization tool: Tableau, Microsoft Visio, Miro
• **OS:** Windows, Ubuntu(Linux)
• **Software:** Apache, Nginx

AWS SERVICES

S3, EC2, Glue, IAM, Lambda, KMS, SecretManager, ApiGateway, Neptune, ECS, CloudWatch & Cloudtrail, Route 53, VPC, SQS, SNS, CloudFormation, Athena, SFTP, Dynamo DB, Autoscaling.

Domain

Banking and Finance, Engineering, Mass media communications and Water technologies.

Extra Curricular Interests

- Volunteer in Rotary Youth Leadership Awards– Activities and Events
- Basketball and Hockey trainer - SBOA School and Junior College
- Content writer

- Involved in writing **Spark** program for **scheduling** the Jobs to be triggered every 1hour.
- Through the **SQL** Connection, data will be pulled from the S3 bucket and will be visualized in **Tableau**.
- Reading and writing **Oracle data** in an optimized way by creating **Transformations and Partitions** while reading and loading the output in **S3 buckets**.
- Successfully ported a legacy, on-premises application to AWS and achieved **significant increase in availability**.
- Played a key role in selecting **appropriate AWS service** based on data, compute, database, or security requirements.
- Analysed **client requirements** & determined system architecture requirements to achieve business goals.

Software Engineer

Oct '18 - Sep '19

World Bank Group

SF, US

The World Bank is an international financial institution that provides loans and grants to the governments of low and middle income countries for the purpose of pursuing capital projects

- Involved in discussions with lead SME's and Data Modelers to understand the **ETL** Requirements, **Data Modeling** and **Data Mapping** and prepared Meta Data as per the requirement.
- Design and Develop **Glue jobs** for Extraction, Transformation and Loading strategies.
- Involved in writing **Python** and **Pyspark scripts** for the AWS Glue jobs for efficient execution. Also writing queries in **Gremlin** to verify the data extraction from the back end.
- **Performance Tuning** of Glue jobs along with managing the Test plan, Test cases, Test Results and Defect process.
- Implemented **CloudWatch** Event and schedule-based triggers.
- Designed and implemented all the custom **IAM Roles and policies** for services and users for providing Secured access based on the Roles.
- Performance improvement in Neptune **graph database**.

INTERNSHIPS

Summer Intern

May '18 - Jul '18

Equitas Small Finance Bank

Chennai, IN

With more than 150 projects, the company has a large customer base of more than 70 customers all over the India

- Worked as a **Web Developer & Mobile Application Intern** to develop web pages by using HTML, CSS and JavaScript.

CERTIFICATIONS

- External certification in AWS – Business, Technical and TCO & Cloud Economics as a part of AWS Partner Network
- Robotic Process Automation UiPath Certified Developer
- Robotic Process Automation – Diploma in Business Analysis (UiPath)
- Python for Data Science | Udemyl
- Spark fundamentals – Level 2 (Intermediate) | Coursera
- Ultimate Google Cloud Certification – Associate Cloud Engineer, Cloud Architect, Cloud Developer and Network Engineer | Udemyl

EDUCATION

R.M.K.COLLEGE OF ENGINEERING AND TECHNOLOGY

Aug '14 - May '18

B.E. Electronics and Communication

Chennai, IN

- First class Distinction

S.B.O.A.SCHOOL AND JUNIOR COLLEGE COMPUTER SCIENCE

Jul '06 - Apr '14

Chennai, IN

- Top 15 percentile of the school