Lokesh Palacharla

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Summary

Self-motivated Cloud Solutions Architect, with 8+ years of technical experience in computer science, engineering, and business development in highly competitive segments of the consumer appliances, Energy, and Banking domains. Experienced at working in a fast-paced start-up environment and a well-established multinational company. Capable of wearing multiple hats to deliver the best results with limited resources

Professional Experience

Bank of America   **Allen, TX, USA**
Solutions Architect   *February 2022 - Present*
- Delivered optimized solutions as a Solutions Architect, achieving 3 major, 5 medium, 9 minor, and 2 POC architecture deliverables, saving ~$1.2 MM in hardware costs by transitioning to SOA-based application design.
- Redesigned application logging framework, saving maintenance costs up to $4.2 MM for the next 5 years, and eliminated MQ usage, Cassandra storage, and duplicate blob messages.
- Designed and implemented a near real-time data pipeline handling 3.5K TPS volume, enabling personalized customer journey via Adobe Experience Platform (AEP) and Analytics.
- Provided personalized event streaming integration pattern for capturing customer disposition data and persisting on the Hadoop platform, reducing TCOA costs of the implementation.
- Led a team of off-shore architects, explored new technology solutions, and presented essential comparisons, pros/cons, and target use cases in the architecture forum.
- Led the end-to-end modernization initiative for the insights engine application, managing the migration of the legacy application stack to a microservice-based implementation with API integration.
- Identified critical dependencies and tech debt in the end-to-end design phase and presented them before implementation kickoff, resulting in saving 6 months of development time, 11 resources, and $389K estimated costs for a capability enhancement project.
- Worked in collaboration with the Digital Platform Architecture team within the Bank for the development of the Purple Accounts Overview architecture, a crucial initiative for the Bank where they released a new version of the BoA mobile app with a new accounts overview experience

CIMCON Lighting   **Burlington, MA, USA**
Cloud and Data Visualization Specialist   *October 2020 - February 2022*
- Designed and developed a rule engine for data architecture assessments and reviews, incorporating AWS IoT analytics, IoT Core, Kinesis, RDS, Lambda, Cognito, Docker, Databricks, MongoDB, and Snowflake.
- Reduced data pipeline costs by 68.4% through the implementation of S3 incremental update feature and server-less architecture using AWS Lambda functions.
- Achieved 80% improvement in deployment and development times for the visualization module, reducing it from 5 hours to 1 hour for each new client.
- Served as a Subject Matter Expert for the Nearsky StreetVibe application, facilitating the deployment of smart city solutions in 21 cities across the USA.
- Established a predictive analytics platform for global smart cities using the AWS Machine learning stack.

CIMCON Lighting   **Burlington, MA, USA**
Data Engineer   *January 2020 - July 2020*
- Developed a real-time alerting system for a Gunshot detection use case using AWS IoT Events and AWS IoT Things graph, leading a team of four offshore engineers.
- Implemented a user role-based authentication system on AWS Cognito, IoT Analytics, Glue, Athena, and Lambda, integrating third-party federated identities like Microsoft AD, Google accounts, and social media handles.
- Led a group of four offshore engineers in developing a custom Java application with BI driver container for load balancing and deployed it on AWS EKS in an agile development environment.
- Built a data pipeline for real-time IoT analytics using Azure Databricks workspace with Apache Spark analytics platform.
- Implemented an Air Quality forecast using AWS Machine Learning stack and achieved 96.7% accuracy in predicting traffic congestion, creating interactive dashboards in Metabase, AWS Quicksight, Tableau, Power BI, and Grafana.

Tech Mahindra   **Hyderabad, Telangana, India**
Software Engineer   *August 2016 - December 2018*
- Developed an incentive accrual application plugin, increasing efficiency by 41% and providing a solution in <2hrs.
- Provided baseline Oracle ERP application support services, addressing day-to-day operations, set-up-related issues, break fixes, and enhancements.
- Executed change requests as a PLSQL and Shell Script developer, fixing ~3M bad data.

BrainVita Pvt Ltd.   **Kakinada, Andhra Pradesh, India**
Application Engineer   *March 2015 - May 2016*

- Developed back-end functionalities and managed databases for the Handyman on Call (HOC) Android application, demonstrating proficiency in computer science and software engineering principles.
- Enhanced the app's image gallery using JavaScript and CSS, showcasing agile development practices and effective communication skills.

Education

Northeastern University   January 2019 - August 2020
Master's, Data Analytics   *GPA: 3.87*

- Predictive Analytics, Data Mining, Probability and Statistics, Database management systems, Information technology, Project management, Data Visualization and Business Intelligence, Information Systems Design and Development.

Certifications

Google Cloud Certified Professional - Cloud Architect
AWS Solutions Architect - Professional

Projects & Outside Experience

Monolithic Apps Migration to Service Oriented Architecuture Apps
Solutions Architect   *February 2022 - July 2023*

- Led the design and implementation of OM migration to a Service-oriented Architecture application called Insights Engine
- Broke down each functionality into individual service components supporting fetch, modify, and create operations
- Implemented a framework for ingestion of the offer disposition data to the Strategic Hadoop data platform using Kafka Topics.

StreetVibe Cloud for IoT Sensors
Data Visualization Engineer   *January 2020 - July 2020*

- Developed and launched the first edition of Streetvibe platform for the NearSky360 devices within 3 months, demonstrating agility and efficient project delivery.
- Established a communication channel between MongoDB atlas cluster and a Java-based visualization tool through MySQL BI connector, showcasing strong communication skills and technical proficiency in DevOps and computer science.

Hand-Written Image Predictions

                                                       March 2020 - June 2020

- Utilized CART algorithm to generate 28X28 grayscale images representing handwritten digits from 0 to 9 integers
- Predicted pixel values for 785 regression trees resulting in accurate handwritten digit recognition

Ionosphere Signal Predictions

                                                    July 2020 - August 2020

- Utilized Hadoop, HBase, and Hive to measure the accuracies of 'good' instances and 'bad' cases by implementing KNN, GLM, and decision trees

Alcohol Effect – Student Grades

                                                    June 2019 - August 2019

- Predicted the impact of alcohol consumption on student grades, revealing that weekday alcohol consumption reduced the average predicted grade from 11.22 to 10.88, and weekend consumption had a minimal effect on grades.

Skills & Interests

Skills: Solution Architecture, Data Analysis, Data Science, Information Architecture, Agile, Interaction Design
Programming Languages: Python, SQL, R, Shell, Unix, Java
Databases: MySQL, Cassandra, Mongo, Postgres, Oracle, Cosmos DB, Apache Hive, S3, RDS
Big Data : Hadoop, Pyspark, Apache Kafka, Apache Spark, Elasticsearch
Machine Learning: Tensorflow, Keras, Knn, Decision Trees, Neural Networks, Pandas
Cloud Tech: AWS EC2, AWS IoT, AWS Lambda, AWS Glue, AWS EKS, BigQuery, Cloud Functions, Google Pub/Sub, Kinesis, Kubernetes, Cloud Trace, Workflow, API gateway, Cognito
Visualization Tools: Tableau, Power BI, Amazon Quicksight, Looker, Metabase
DevOps: Ansible, Jenkins, Docker, Git, Chef, Puppet, Bitbucket, Terraform, Prometheus, Splunk, AWS CloudFormation
Dev Tools: VS code, Jupyter, SQL developer, Anaconda, Eclipse, Postman, Putty, WinSCP
Interests: Photography, Outdoor Activities, Learning Tech Content