

# Lokesh Palacharla

MS - Data Analytics | 6+ years' experience | H1B Validity - 01/30/2025 | AWS Solutions Architect | Machine Learning | CV | AI

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Self-motivated data analytics graduate and an **AWS certified Cloud Solutions Architect – professional**, with 6+ years of technical experience in computer science, engineering, and business development in highly competitive segments of the consumer appliances industry. Experienced at working in a fast-paced start-up environment and a well-established multi-national company. Capable of wearing multiple hats to deliver the best results with limited resources.

## EXPERIENCE

### Synechron, Inc.

Client: Bank of America

Feb 2022 – Present

#### Lead Technology

- Serving as a **Solutions Architect**, delivering optimized solutions to business problems, for one of the largest **banking clients** of the organization. Worked on building **omnichannel** marketing data pipelines across **digital**, contact center & financial centers.
- Designed & implemented (production) **near real-time data pipeline** that could handle **3.5K transactions/second** volume and support personalized customer journey via **Adobe Experience Platform (AEP) & Adobe Analytics** by analyzing the customer clicks and interactions made on online and mobile channels of the bank.
- Lead architect** for customer **insights** domain, provided customized **event streaming** integration (using **confluent Kafka** topics) pattern for capturing **customer disposition data** and persisting on the **Hadoop** platform needed for **operational & analytical** use cases. This helped in reducing major costs to the company.
- Contributed to the **personalized** marketing architecture with high-quality architecture solutions supported by **Solution Architecture Approach for 8 applications**, Current Vs Target State diagrams that are abiding by **principles** and **patterns** followed in the bank.
- Enabled **solutions** to solve **large-scale**, complex business problems with high **resiliency**, **scalability**, **performance**, **concurrency**, and other non-functional requirements of the line of business.
- Lead** a team of four off-shore architects, explored new **technology solutions**, and presented essential comparisons, **pros/cons**, and **target use cases** for discussions in the **architecture forum**.

### CIMCON Lighting Inc.

Oct 2020 – Feb 2022

#### Cloud & Data Specialist

- Responsible for the data architecture related assessments and reviews for the **Nearsky** product. Designed and developed a rule engine which sends **alerts and event** notifications to our end users from our **StreetVibe** cloud.
- Experienced in architecting systems comprising one or more of the following: **AWS IoT analytics**, **IoT Core**, **Kinesis**, **RDS**, **Lambda**, **Cognito**, **Docker**, **Databricks**, **MongoDB**, **Snowflake**, **Meta base**.
- Involved in the implementation of the **device management** module, used for **remote configuration**, **Over the air updates**, controlling the NearSky devices from the **StreetVibe** platform.
- Reduced the costs** incurred by our existing data pipeline by **68.4%** by implementing S3 incremental update feature and making it server-less using **AWS Lambda** functions.
- Achieved a significant **improvement** of **80%** in the deployment and development times (from **5 hours to 1 hour**) of the visualization module for every new client.
- Worked as a **Subject Matter expert** for of Nearsky **StreetVibe application**, which helped **21 cities** across the USA to deploy multiple smart city solutions across the globe.
- Modeled and articulated major aspects of highly scalable, reliable, and providing technical data solutions that leverage the **AWS cloud platform** to develop **IoT** solutions.
- Established a predictive analytics platform for global smart cities by implementing the **AWS Machine learning** stack.
- Offer technical guidance on technical standards, including **coding standards**, **tools**, or **platforms**.

### CIMCON Lighting.

#### Data Engineer

Jan 2020 – Jul 2020.

- Worked on **AWS Cognito**, **IoT Analytics**, **Glue**, **Athena**, **Lambda** to stand up a user role-based authentication system which can be collaborated with third party federated identities like Microsoft AD, Google account, and other social media handles.
- Lead a team of four offshore engineers to develop a real-time **alerting** system for **Gunshot** detection use case by utilizing **AWS IoT Events** and **AWS IoT Things graph**.
- Developed a data pipeline for **real-time IoT analytics** using **Azure Databricks** workspace comprising of **Apache Spark** analytics platform.

- Worked on building a executive level **real time visualization** dashboard using **Power BI's** integration with **Azure Databricks** data science and engineering environment.
- Developed a custom Java application with BI driver **container** which balances the load by horizontal scaling and deployed it on **AWS EKS** and lead a group of four offshore engineers in an agile development environment.
- Implemented **Air Quality forecast** using **AWS Machine Learning stack** and predicted the traffic congestion with **96.7%** accuracy and created interactive dashboards in Metabase, AWS Quicksight, Tableau, Power BI, Grafana.

## Tech Mahindra Ltd.

Aug 2016 – Dec 2018.

### Software Engineer

- Built an incentive accrual application plugin which enhanced the **efficiency** by **41%** and provided a solution in <2hrs
- Provided baseline **Oracle ERP** application support services which compromises of the day-to-day operations, set up related issues, **break fixes**, mini releases, **enhancements**.
- Functioned as **PLSQL**, **Shell Script** developer and successfully executed change requests that resulted in fixing ~ 3M bad data.
- Handled critical **migrations** and **enhancements** of the reporting and accruals application. Played a vital role in the month-end accrual activities and automated the reporting in **MS Access DB** with **PLSQL** scripts.

## BrainVita Pvt Ltd.

Mar 2015 – May 2016.

### Technical Intern

- Worked as a **back - end developer** and **database manager** on a project named handyman on call - (HOC) an android application.
- Spiced up the image gallery of the app using **JavaScript** and **CSS**. Responsible for encryption of the passwords with **MD5**.

## SKILLS

<b>Programming Languages:</b>	SQL, PLSQL, R, Python, JAVA, Shell Script, Clojure, Lisp, PHP.
<b>Databases:</b>	My SQL, Snowflake, Cosmos DB, MongoDB Atlas, Postgres.
<b>Machine Learning:</b>	Linear Regression, KNN, Decision Trees, SVM, Neural Networks.
<b>Front-End Tools:</b>	Angular JS, React, Node.js, bootstrap, jQuery.
<b>Web Development:</b>	HTML, CSS, JavaScript, REST API, Adobe Photoshop, Post Man.
<b>Cloud Services:</b>	Azure Databricks, Event Hubs, Stream Analytics; AWS S3, RDS, lambda, Glue, Cognito, Kinesis, EC2.
<b>Visualization Tools:</b>	Tableau, Power BI, Metabase, AWS Quicksight, Grafana, SiSense, Looker.
<b>Technical Tools:</b>	Workbench, VS Code, SQL Developer, Spyder, Postman, Putty, WinSCP, Visual Studio, Cloudberry, Eclipse.
<b>Containerization Tech:</b>	Docker, Microsoft container, Kubernetes, Swarm, BlockBridge.

## PROJECTS

### Ionosphere Signal Predictions

Jul 2020 – Aug 2020.

- The objective of the project is to measure the accuracies of 'good' instances and 'bad' cases by feeding the dataset to **KNN**, **GLM**, **decision trees**.

### Hand-Written Image Predictions

Jul 2020 – Aug 2020.

- Generated 28X28 grayscale images which represents a handwritten digit starting from 0 to 9 integers, utilized **CART algorithm**.
- **Predicted** the pixel values for the 785 **regression trees** and observed the combined output were resulting the handwritten digits.

### StreetVibe Cloud for IoT Sensors

Jan 2020 - Jun 2020.

- Primary contributor in building the first edition of **Streetvibe** platform for the NearSky360 devices and launched it within 3 months.
- Developed a communication channel between **MongoDB atlas** cluster with a Java based visualization tool through **MySQL BI** connector.

### Alcohol Effect – Student Grades

Jun 2019 – Aug 2019.

- **Predicted alcohol effect on grades**. Alcohol consumption on weekdays, will reduce the expected average grade from 11.22 to 10.88.
- Found that Alcohol consumption on weekends, will reduce the average predicted grade from 11.19 to 11.17.

## CERTIFICATIONS

- **AWS Cloud Solutions Architect - Professional** Jun 2020 – Jun 2023.
- **Tableau Desktop Developer** Apr 2020 – Apr 2025.

## EDUCATION

### Northeastern University, Boston, MA.

GPA: 3.87

**Master of professional Studies** in Informatics with concentration in **Data Analytics**.

**Relevant Coursework:** Predictive Analytics, Data Mining, Probability and Statistics, Data Base Management systems, Information technology Project management, Data Visualization and Business Intelligence, Information Systems Design and Development, Systems and Network Administration.