

# AJESH KUMAR RANA

## Technical Lead



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Scaling new heights of success with hard work & dedication and leaving a mark of excellence on every step; targeting assignments which involve analytical capabilities and professional growth in **Data Science**



### PROFILE SUMMARY

- ❖ **Data Science, AI & ML Post Graduate Professional**, with **over 7 years** of experience in solving business problems by exploring data, providing insights, and improvements with the help of Statistical, Machine Learning and Artificial Intelligence techniques
- ❖ **Keen Analyst**; highly skilled in **exploring and interpreting large & complex data sets**, and providing resilient **data analytic** solutions to critical business problems, thereby empowering the organizations in data-driven & strong decision-making
- ❖ Excellence in **gathering and understanding requirements** of stakeholders, followed by translation into functional specifications as well as provisioning of suitable solutions
- ❖ Gained a conceptual exposure on application of the relevant industry **Data Science** methods, driving data-driven business decisions across the organization and building a data-driven culture & policies
- ❖ Multi-faceted & performance driven professional offering expertise in **Statistics, Mathematics, Analytics, Regression Algorithm, Classification Algorithm, Cloud Computing, Deep Neural Network, Computer Vision, Natural Language Processing** along with hands-on experience in tools - **Python, Data Visualization, EDA and much more**
- ❖ **Training & Technical Support Professional** with expertise in resolving customer escalations and troubleshooting technical errors
- ❖ **Administered networks and systems** by developing maintenance protocols, managing product and capability roadmaps, and collaborating with systems administrators
- ❖ Proficiently **provided technical support** to Nokia, Huawei, Fiber Home, UTStarcom, IBM, Kyndryl, Ciena, Cisco Project and performed troubleshooting for Operating System, Hardware, Software & gained NOC experience in assisting customers and engineers regarding technical issues
- ❖ Appraised with **Best Trainer Award** from Government Telecom Minister in **2023**
- ❖ **Team-based management style** coupled with the zeal to drive visions into reality and achieve the same through **mentoring, training and career planning** of team members



### CORE COMPETENCIES

- Data Science & Analysis
- Artificial Intelligence
- Machine Learning Algorithms
- Technical Support
- Networking
- Predictive Modelling
- NLP
- Incident Management
- Data Mining / Data Visualization
- Requirement Gathering & Analysis
- Computer Vision
- Training & Knowledge Sharing



### GROWTH TIMELINE IN EDGE TELECOM PVT. LTD.



### WORK EXPERIENCE

Jun'16 – till date with Edge Telecom Pvt. Ltd.

Growth Path:

Jun'16 – Feb'17 as Project Engineer

Feb'17 – May'18 as Technical Support

May'18 – May'19 as Senior Executive Training & Technical Support

May'19 – Jan'23 as Senior Executive Technical Support

Jan'23 – till date as Technical Lead

Role:

- ❖ Administering the planning, execution, and delivery of technical projects also setting project goals, defining milestones, and ensuring that the team meets deadlines
- ❖ Ensuring proper documentation of technical specifications, project plans, and other relevant information

- ❖ Managing and leading the technical team, also motivating and inspiring team members, encouraging collaboration, and fostering a positive working environment
- ❖ Interpreting and analyzing data to draw conclusions, identifying patterns & converting data into actionable insights by predicting and modelling future outcomes
- ❖ Using key libraries for data intelligence and analysis, including Tableau, Power BI, Pandas, Seaborn, NLTK, TensorFlow, Matplotlib, Spacy, Scikit-Learn, and others
- ❖ Compiling, organizing, and performing statistical analysis on business and data sets to evaluate performance and efficiency
- ❖ Presenting data visualization models to business teams for assessment
- ❖ Creating data modeling standards and procedures
- ❖ Performing analysis to determine the quality and meaning of the data
- ❖ Conducting technical evaluations for currently employed personnel and directing the development and preparation of an upcoming project
- ❖ Conducting interviews with both fresher and experienced engineers
- ❖ Evaluating data findings to communicate findings in a clear, structured manner; developing cordial relations with stakeholders and rendering guidance
- ❖ Analyzing large amounts of information to discover trends and patterns; using the same to develop predictive models and Machine-Learning algorithms

## TECHNICAL SKILLS

- ❖ **Data Science/ Machine learning/ Deep Learning /Computer Vision/ NLP:** Python, Data Visualization, EDA, Supervised Learning Algos, Unsupervised Learning Algos, Time Series, Hyperparameter Tuning, Cross Validation, Ensemble, Feature Engineer, Dimensionality Reduction, Feature Scaling, Elbow Method, Imbalanced Data ,ANN, CNN, BERT, YOLO, RNN, LSTM, Auto Encoder, Pre-Trained Model, Data Augmentation, Image Generator, Batch Normalization, Dropout Regularization, Optimization, Text Classification, Text Preprocessing, Text Extraction, Word Embedding, Quantization, Tf-Serving, Tf-Lite, LLM, Quantization Model, Generative AI
- ❖ **Mathematics for DL/ML:** Statistics, Probability, Mathematics
- ❖ **Libraries & Framework:** NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn, NLTK, TensorFlow, Keras, Spacy, Genism, PyTorch, Text Blob, Open CV, Wavelet, Beautiful Soup, Lang chain, Web scraping, Pysprak, Open AI, Hugging Face, Dialogflow, PySpark
- ❖ **Cloud Deployment and Containers:** AWS, Azure, Heroku, Git, Docker, GCP, Python Flask, Fast API, Streamlit
- ❖ **Cloud Services:** EC2, VPC, VPN, S3, EBS, Dynamo DB, RDS, CloudWatch, ECR, ECS, Lambda, CloudTrail, CloudFormation, CloudFront, Load Balancer, Autoscaling, Route 53, Elastic Beanstalk, SNS, SQS, Snowball, Aws Sage maker, Azure App Services, Azure Container Registry, Azure Blob Storage
- ❖ **Operating System:** Windows, Linux, Mac OS
- ❖ **MLOPS Framework:** DVC, MLFlow, Airflow, CI/CD Pipeline
- ❖ **Tools:** Advance Excel, Tableau, Power BI, VS Code, Jupiter Notebook
- ❖ **Databases:** PostgreSQL, MySQL, MongoDB
- ❖ **Vector Databases:** Pinecone, FAISS, Chroma
- ❖ **Programming Languages:** HTML, CSS, Bootstrap, Python, R, Linux, SQL
- ❖ **Cloud Computing:** AWS, Azure, GCP, Git, GitHub, Docker Hub
- ❖ **Software:** Postman, Visual Studio
- ❖ **Prompt Engineer:** ChatGPT, Bard
- ❖ **Networking:** CCNA

## PROJECT DETAILS

### Chatbot Application (LLM)

#### Role:

- ❖ List the programming languages, libraries, and tools you used in developing the model. For example, Python, Lang chain, Hugging Face Transformers, Open AI Embeddings
- ❖ Trained the language model to perform various natural language processing tasks, such as text generation and sentiment analysis
- ❖ Integrated the language model with Pinecone, a high-performance vector database, to optimize query and retrieval speeds
- ❖ Leveraged OpenAI's cutting-edge GPT-3.5 architecture to build a powerful and versatile language model
- ❖ Implemented text splitting methods to break down large blocks of text into manageable segments, enhancing processing efficiency and reducing resource requirements

### Financial Analysis (Power BI)

#### Role:

- ❖ Developed and deployed a Power BI dashboard that provided valuable insights into financial data, enabling data-driven decision-making for the finance team
- ❖ Designed interactive reports and dynamic visualizations using Power BI, enhancing the accessibility and interpretation of financial data
- ❖ Consolidated data from multiple sources, including accounting software and spreadsheets, to create a unified, real-time financial reporting system

## Sensor Fault Detection IOT Devices

### Role:

- ❖ Developed an end-to-end data science project incorporating Python and FastAPI for building a robust web-based API to serve machine learning models
- ❖ Implemented machine learning algorithms for predictive analytics and deployed them within Docker containers for scalable and efficient model inference
- ❖ Utilized MongoDB for data storage, providing a flexible and NoSQL-based solution for storing and managing project data
- ❖ Leveraged AWS services such as S3 for data storage, EC2 for scalable computing resources, and ECR for container image management to ensure high availability and scalability of the project
- ❖ Implemented Git Actions for continuous integration and continuous deployment (CI/CD) to automate testing and deployment processes
- ❖ Designed a scalable and maintainable project architecture that integrates machine learning algorithms, web API, and data storage within a cloud-based infrastructure

## Chatbot Int.

### Role:

- ❖ Developed a sophisticated chatbot application using Dialogflow, enabling seamless interactions with website visitors and enhancing customer engagement
- ❖ Integrated the chatbot with the company website to provide real-time support, answer queries, and guide users through various services
- ❖ Leveraged a MySQL database to store and retrieve data for personalized chatbot responses, ensuring accurate and up to date information
- ❖ Implemented natural language processing (NLP) within Dialogflow to understand and respond to user queries effectively, improving the user experience
- ❖ Monitored and analyzed chatbot interactions to gather insights and fine-tune the chatbot's responses for continuous improvement

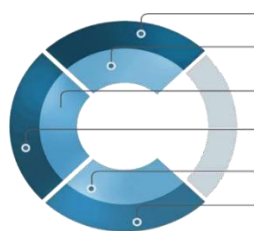
## Face Authentication System

### Role:

- ❖ Developed a robust face authentication system, utilizing MongoDB as the primary database for collecting and storing user details and images
- ❖ Implemented state-of-the-art facial detection using the MTCNN (Multi-task Cascaded Convolutional Networks) algorithm for accurate face localization
- ❖ Employed the FaceNet model for deep facial embedding, ensuring high-quality feature representation for face recognition
- ❖ Achieved exceptional accuracy in facial authentication by fine-tuning the FaceNet model and optimizing the recognition process
- ❖ Designed and integrated a user-friendly interface for capturing and securely storing user images, ensuring data privacy and security



## SOFT SKILLS



Analytical

Communication

Collaboration

Decision-making

Problem-solving

Innovative



## CERTIFICATIONS

- ❖ Post Graduate Diploma in Computer Application
- ❖ Post Graduate Program in Data Science from Purdue University in collaboration with IBM and Simplilearn in 2021
- ❖ Post Graduate Program in ML & AI from Purdue University in collaboration with IBM and Simplilearn in 2022
- ❖ Network Management System (Government Trained)
- ❖ CCNA



## EDUCATION



**2016:** B.Tech. / BE in Electronics and Communication Engineering from Gandhi Institute for Education & Technology



**2012:** 12th in Science from Saheed Mahavidyalaya



**2009:** Automobile/Automotive Engineering from Govt. ITI, Balasore



## PERSONAL DETAILS

**Date of Birth:** 7<sup>th</sup> January 1993

**Languages Known:** English, Hindi, and Oriya

**Present Address:** Vatika City, Gurgaon, Haryana – 122101

**Permanent Address:** Balasore, Odisha – 756045