Lalu Prasad Lenka

Data Scientist

Bangalore | +916360394977 | laluprasad.lenka95@gmail.com | LinkedIn | GitHub | Portfolio

Professional Summary

Data Scientist and seasoned developer with a strong knowledge of programming languages, data structures, algorithms and machine learning. I like finding creative, simple yet effective solutions to business problems using a combination of math, programming and business skills. I am super passionate about the reach of technology and when it comes to conquering new frontiers, I want to be there at the forefront. I love working with exceptionally talented people, always learning discovering new ways to do things better

Skills

Analytical Skills : Machine Learning, Deep Learning, Natural Language Processing, Time Series Analysis, Predictive and Prescriptive Analytics.
Languages : Python, R, C++, Java
DB Scripting : MySQL, PostgreSQL, Oracle, MongoDB
Data Science Tools : RapidMiner, Knime
ML Libraries/Frameworks : Tensorflow, Keras, PyTorch, Scikit-Learn, Pandas
Big Data Tools/Skills : MapR, Hadoop, Spark, Kafka

Professional Strengths

- Data Science – Data Preparation, Predictive Analytics, Validation and Production rollout.
- Strong grasp on Statistical Analysis along with Machine Learning and Data Mining.
- Excellent problem-solving skills & programming skills.
- Experience of deploying end-to-end ML solutions to AWS cloud using AWS lambda and Beanstalk.
- Strong grasp of object oriented and procedural programming paradigms.

Work Experience

Junior Data Scientist | Aptus Data Labs | July 2018 – Present

Working as a Data Scientist on data preprocessing, Machine Learning modeling, Advanced Analytics and Operationalization of Analytics. My responsibilities include designing, building and validating data models thereby creating end-to-end ML pipeline and deploying them in production environment. I am also responsible to present the solution to senior management and to demonstrate the insights and value our solution brings on the table to the clients.

- **Project Title: Demand Forecasting and Inventory Optimization**
  We are currently working to build a cloud (AWS) based inventory optimization platform that will suggest future sales, promotions and suggest product orders. It supports optimal demand forecasting model selection out of many models like **LSTM**, **ARIMA**, **Holt-winters**, **hybrid models (Adaboost- LSTM Ensemble)** etc.
  Tools and Technologies: Python, Tensorflow, Keras, AWS Lambda, AWS EC2

- **Project Title: Log book Automation using Optical Character Recognition**
  We developed a deep learning model to recognize text in machine screens and log it directly to database to reduce human effort. Text extraction on an image in two independent steps: detection (Region Proposal Network) and recognition (using CNNs).
  Tools and Technologies: Python, Tensorflow, Keras

- **Project Title: IoT Analytics Platform for Predictive Maintenance**
  We built an IoT/Streaming Analytics platform to perform predictive maintenance of devices where data gets read from sensors, processed in spark, persisted in MapR FS. Finally, reporting is done using Grafana which shows predicted future failure point of device.
  Tools and Technologies: MapR, Apache Spark, Apache Mahout, Scala, Java, Kafka

Education

- 2014–2018 | B.Tech in Computer Science and Engineering | College Of Engineering and Technology, Bhubaneswar | CGPA – 8.72
- 2011-2013 | Higher Secondary Education (Class XII) | D.A.V Public School, Talcher | 91%

Honors and Awards

- Excellence Award Oct 2018 | Aptus Data Labs

  Excellence award for recognition of outstanding performance, significant contribution to drive customer engagement and technology learning in the field of Analytics.

- **Project Title: Named Entity Recognition Engine**
  Built an **LSTM** based **Named Entity Recognition** model based on IUPAC dataset to detect chemical names and medicines in a given medicine preparation document.
  Tools and Technologies: Python, Keras, Kivy

- **Project Title: Shipping Chain Optimization**
  We developed a self-learning **Genetic algorithm** based **Artificial Intelligence** algorithm which creates a cost-optimized and constraint-satisfied plan.
  Tools and Technologies: Python, MySQL

Data Science Intern | Aptus Data Labs | Jan 2018 – July 2018
Worked as a Data Science Intern mostly on **Exploratory Data Analysis** & **Time Series Analysis**.

- **Project Title: Time Series Analysis**
  Used extensive exploratory data analysis & data preparation to clean the data and used Time series forecasting algorithms to forecast the demand for next year.
  Tools and Technologies: Python, Power BI

- **Project Title: Document Classification Engine**
  Built a Document Classification Model to classify given documents on the basis of techniques used to prepare the medicine. Used **TF-IDF** score to create feature vectors and used **Random Forest** algorithm to build the model.
  Tools and Technologies: Python, MySQL, Keras, RapidMiner

Machine Learning Intern |Tata Consultancy Services | Jun 2017 – July 2017
Worked on a project "**Image Attribute Extraction**" which included extraction of text from product images and populate specific attributes with extracted text. Developed a combined architecture of **CNN & RNN** to build an Optical Character Recognition engine for text recognition.
Tools and Technologies: Python, Keras, OpenCV

Academic Projects

AI for chrome dinosaur (Final Year Major Project)

The aim of the project was to build a **Neuroevolution** based Artificial Intelligence bot that can play Chrome's dinosaur game. A simple **3-layer Neural Network** was used to map the inputs i.e. distance from obstacle, speed and size of obstacle to output i.e. keystrokes (up/down).
Tools and Technologies: Python, JavaScript

GESTURE TO SPEECH CONVERSION

The aim of the project was to build an application that could help speech & hearing-impaired people to communicate. We collected gesture (Indian hand signs) data using Leap Motion Controller device and tried to build a classification model on top of it.
Tools and Technologies: Python, JavaScript, Leap Motion Controller

Publications | Research

Gesture to Speech Using Leap Motion Controller | See Publication
Mar 5, 2017 | IEEE Delhi Section

This paper studies the possibilities of developing a gesture to speech and speech to text interface that uses Leap Motion sensor at its center for helping the substantial number of speech and hearing-impaired individuals (2.78% of total population) in our country.

- Certificate of Excellence

  March 2018 | Zairza, CET Bhubaneswar

  Received Certificate of Excellence from Prof. in Charge of Technical Society for my contributions as Technical Coordinator.

- Winner in IEEE colloquium Bhubaneswar Subsection

  Nov 2016 | IEEE Bhubaneswar

  Won first prize for paper presentation at IIT Bhubaneswar **IEEE colloquium**.

- CET Merit Scholarship

  College of Engineering and Technology, Bhubaneswar

  Received CET **merit scholarship** every year of undergraduate studies being a meritorious student.

Certification

- Deep Learning Specialization | Coursera | deeplearning.ai
- Statistics with R Specialization | Coursera | Duke University
- Machine Learning A-Z Hands-On Python in Data Science | Udemy
- Data Science A-Z™: Real-Life Data Science | Udemy
- Python: Design Patterns | Udemy

IELTS Score – Band 8