Rahul Kumar Sinha

Data Scientist- Reliance Industries

Machine Learning, Deep Learning, NLP,
Python, MongoDB, Elastic Search & Kibana

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Summary

As a Data Scientist, I have 5 years of experience and currently working as Senior Manager at Reliance Industries Limited. My Expertise is in designing, creating and deploying large scale data science applications.

I closely work with product, development, deployment team to conceptualize, design, develop and deploy enterprise-scale AI/ML-based solutions for cloud-based applications related to human resource management systems and services.

Handled petabytes of data using python, elastic search and kibana for data exploration and visualization.

I have reduced my products loading time and memory consumption by 80% without affecting the run time. Hence experience in delivering production-grade applications which are easy to scale, memory efficient and have low latency.

Experience spanning across all phases of Software Development Life Cycle (SDLC) like Feasibility Study, Analysis, Coding, Documentation and Unit testing knowledge

I have experience with supervised learning methods such as generalized linear models, decision trees, ensemble models, support vector machines (SVM), probabilistic models, deep learning and unsupervised models such as K-means clustering.

Have working experience with NLP based models such as Seq2Seq models with attention, word embeddings (fast-text, word2vec, Glove), LSTM/GRUs, 1d convolutional networks.

I have frequently worked with Django and Flask frameworks deployed via Docker on Amazon EC2, Azure VMs, and server-less deployment using Amazon Lambda (Zappa).

Ability to have a broader perspective to any problem and to visualize different aspects of problems armed with excellent end-user interfacing, analytical thinking ability and initiatives.

Technical Skills

Known Languages:	Python, Java Script, HTML, CSS & JSON
Databases:	Basic knowledge of SQL Server & MongoDB, Elastic Search, Neo4j
Libraries & Frameworks:	Nltk, Spacy, Scipy, Sklearn, Numpy, OpenCv, Tensorflow, Django,PyMagnitude, JQuery, Matplotlib, Pandas, Keras, kibana and Bootstrap.
Version Control:	Git, SVN

Work Experience

Dec 2017 -	Reliance Industries Limited – Navi Mumbai, India	
Present	Data Scientist	
	Notice Period	: 90 Days (Negotiable)
Nov 2013 -	Tech Mahindra - Pune, India	
Dec 2017	Senior Software Engineer	

Projects

Distributed Virtual Assistant Development Toolkit
Data Scientist, Reliance Industries
June 2018 – Ongoing

Building a python-based tool allowing non-technical users to design, train and deploy closed domain virtual assistants using a GUI. The bots are then integrated into a meta-model that allows intermediate intent switching to an intent on another bot deployed on some other server. Also, allows users to integrate APIs during any part of the conversation (for assisting user by fetching data, validating user inputs against database or completing a transaction on a service such as travel bookings, leave/regularization systems, HR queries etc). Integration with live systems and applications is ongoing.

Tools used: Python, NLP, NLG, RASA framework, entity extraction, Markov chains, LSTM based neural networks, Django, Docker, NGINX, Keras, Scikit-learn.

Course Recommendation Engine for Reliance LMS
Data Scientist, Reliance Industries
Jan 2017 – May 2018

Productionalized a course recommendation engine for 30,000+ employees which integrates various businesses at user end and various learning partners of Reliance at content end. Utilized employee demographics and organisational data to create a multiple recommendation system integrated via a multi-arm bandit-based architecture to personalise each user's experience. Have used matrix decompositions, fuzzy logic, collaborative filtering, association models, context clustering and reinforcement learning.

Tools used: Python, Text analysis, NLP, Collaborative filtering, SVD, Search strategies, Reinforcement Learning, Scikit-learn.

JD-CV matching algorithm for candidate shortlisting
Data Scientist, Reliance Industries
August 2018 – Ongoing

Building a CV sourcing and shortlisting platform that allows hiring managers to access a ranked order of profiles matching the requirement. These profiles are enriched using multiple data sources and are parsed to extract education, experience, skillsets, project and personal information from the profile. This is followed by document clustering to obtain relevant domain cluster, and document similarity (ranking) algorithms to match JD document to profiles. A reinforcement learning layer is being added to capture and personalise hiring manager preferences and behaviours, while ensuring company standards and requirements.

Tools used: Python, NLP, Word embeddings, Doc2vec, Spacy, fuzzy matching, document classification using LSTMs, reinforcement learning, Keras.

Entellio - Enterprise Input Output Chatbot

Senior Software Developer, Tech Mahindra
July 2015 – Nov 2017

Entellio is a self-learning enterprise Chat bot designed to replace today's mobile self-care applications. UVO is the next gen solution for customer interactions, which will enable enterprises to provide a superlative customer experience to their customers. Currently it is being used internally by Tech Mahindra Employee

Tools used: Python, NLP, Word embeddings, Doc2vec, Spacy, fuzzy matching, document classification using LSTMs, reinforcement learning, Keras, Django 1.10, MongoDB, MySQL, AIML.

LLS Auto Interpreter

Senior Software Developer, Tech Mahindra
Jan 2017 – March 2017

LLS Auto Interpreter is a training application, which helps users to improve their communications skills. Currently it is being used by Tech Mahindra Employee. I was involved in requirement meetings along with the client and preparing External Design Reports, Internal Design Reports, also application design, development and writing code for Latent Semantic Analysis and Tf-Idf.

Tool used: Python, NLP, Word embeddings, Doc2vec, Spacy, fuzzy matching, document classification using LSTMs, reinforcement learning, Keras, Django 1.10, MongoDB, MySQL, AIML.

Education

2009 - 2013 Dr. B. C. Roy Engineering College - Durgapur West Bengal, India

Bachelor of Technology in Electrical Engineering, CGPA: 8.26

2007 - 2009 D.A.V Koylanagar - Dhanbad, Jharkhand, India

Intermediate of Science, Marks: 75%

2007 De-Nobili School C.M.R.I - Dhanbad, Jharkhand, India

Matriculation, Marks: 76.71%

Honors & Awards

2019   Completed Machine Learning A-Z: Hands on Python & R in Data Science from Udemy

2018   Certified as expert in Python by Plural sight

     For successful of completion of Python course at Plural sight with a score of 218 out of 300.

2017   Best Team Award 2017

     For successful delivery of UVO, an internal HR chat bot developed using Django, MongoDB and MySQL.

2016   Standing Ovation Award 2016

     For being flexible and adept in helping successful delivery of Entellio, a NLP based Chat framework developed using Django.

Extra-Curricular Activities

2016 - 2017   Kick Boxing Player - Green Belt

     Qualified 3 levels of Kick boxing.

Hobbies

Playing Kick Boxing, Cooking and learning about nutrition and diet.

Developing web applications, coding on website like Hacker Rank, Hacker Earth, Kaggle and Interview Bit.

Personal Details

Date of birth: May 9, 1991
Gender: Male
Languages: Hindi & English