Ashutosh Tripathi

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Summary

Data Scientist and Applied Machine Learning Engineer with expertise in **Natural Language Processing, Image Classification using CNN and Multi-layer perceptron models**, **Data Pre-processing and Feature Engineering,** having 2.5 years of relevant experience in Machine Learning, Data Science and Artificial Intelligence.

- A total of 7+ years of diversified experience in Data Science, Data Visualization, Predictive Modelling, Statistical Modelling and Software Development.
- Researching Deep learning networks to improve the accuracy of **Speech to Text** conversion.
- Having sound knowledge of **Tensorflow, PyTorch, Keras and Scikit learn** etc. Machine Learning and Deep Learning frameworks.
- Good understanding of Statistical concepts like **Central Limit Theorem, Hypothesis testing, ANOVA, Normal Distribution, Confusion Matrix** with practical knowledge of Regression and Classification ML algorithms like **Logistic Regression, KNN, Decision Trees and Ensemble Learning like Bagging, Boosting and Random Forests.**
- Hands-on experience in **Python** frameworks such as **Pandas** and **Numpy** for data wrangling, **Matplotlib** for Visualization, **SQL** for querying MySQL Database.

Experience

Data Scientist | Applied Machine Learning
Oct 2019- Present

Infineon Technologies

Machine Augmented Strategic Target Identification (MAUSI-Tool)
- It helps to identify the potential target companies and information with an interest of the Infineon Business.
- Techniques used **NLP**, **weighted search**, **Semantic Search**, **Clustering**, Search suggestions, Rating and Feedback, yearly geographic trend, company search and extensive Network charts.

Hand Gesture Recognition system
- In collaboration with the IoT team to have a smart light system at home
- Demonstrated the same in Munich Oktoberfest.
- Technologies used **Pandas, CNN, Tensorflow, Keras, OpenCV.**

Master Data Analyst
Oct 2017 - Sep 2019

Infineon Technologies
2 years

Q&A generation
- Q&A Bot Development for FAE (Field Application Engineer)
- Tried various NLP techniques like Tokenization, word embeddings, TF-IDF, Stop-word removal, Lemmatization.
- Used Google's **BERT model** to generate Q&A from the given document.

Process Parameter Optimization
- It provides a better set of parameters for P-cell Libraries development.
- Analysis of virtuoso and JIRA log data.
- Identify variances among different parameters.
- Find out the range.
- Create data set to feed into the ML model based on various data values generated in previous steps.
- Train the model.

- Output the values of the parameters based on given Technology, cell name and layout value.
- Improved the performance of p-cell development by 30%. which is identified by recording the less no of JIRA tasks.
- Technologies used **Pandas, Numpy, Flask (for front-end creation), Scikit-Learn, Regression** for model building.

Analysis of Potential Employee Leaving the Org.

- Generated data by interviewing various managers, HR colleagues and team leads, recorded their experience on the employees who have left. Also from the excel provided by HR tool.
- Merged Glassdoor website data like salary range for the same level of experience and job category with internal data to have more variance.
- Drawn various visualization to showcase the findings.
- Technologies used **Pandas, Matplotlib**.
- Tried **Logistic Regression, Decision Tree** and **Random Forest** to classify whether an employee will leave or not.

Dashboard building

- Using *Flask, Python, React JS and Bootstrap* with the help of the VS Code IDE.
- Bitbucket and Git for code version management.
- Openshift for deployment.

Full Stack Web Developer
Mar 2015 - Sep 2017

Infineon Technologies
2 years 7 months

- Replaced old fashioned Excel Data Handling with more User-friendly, robust and harmonized web-based application for Chip Card department.
- Established centralized File share repository to store all documents and datasheets for MM3 department. Linked that file share with SVN repository to have version control for those files. Also provided a user interface to do all check-in and commit options for end-user. Also the download options for all previous versions for a particular file.
- Technologies used **C#, MVC, Dot Net, JQuery, Ajax, Oracle.**

Young Graduate Trainee
Mar 2013 - Feb 2015

Infineon Technologies
2 years

- Dashboard building using **Javascript** and **Bootstrap** to show the visualization of no of datasheets download on Monthly basis
- Data Harvesting using **Kapow Tool** to sync Infineon Public website with the latest products and datasheet information. Remove the obsolete and inactive products
- Automatic Excel consolidation which includes downloading various datasheets from Infineon public website, generating a consolidated final excel and uploading it to Infineon share point sites. It reduced 1 Man-Month work to just the 1 hour of work. Technologies used **C# Dot Net**
- Cu-wire Capability generator which replaces AU wire with Cu wire which is more cost-effective. Reduced 1-week work to 4 min work. Technologies used **Excel VBA Macros**

Software Engineer
Jan 2012 - Aug 2012

Ericsson
8 months

Server Health Check by Automating the Commands using Perl Scripts.

Education

Birla Institute of Technology and Science, Pilani
2017 - 2019

Master's degree, Data Analytics and Machine Learning, 8.75

International School of Engineering (INSOFE)
2018 - 2018

PGP in Big Data Analytics, Machine Learning and Artificial Intelligence

PSIT Kanpur (Pranveer Singh Institute of Technology)   2007 - 2011

B-Tech, Information Technology, A

Skills

Machine Learning • Deep Learning • Natural Language Processing (NLP) • Convolutional Neural Networks (CNN) • SQL • TensorFlow • PyTorch • Flask • Neural Networks • Python

Certifications

PGP in Big Data Analytics, Machine Learning and Artificial Intelligence • International School of Engineering (INSOFE)

Dec 2018 - Present

Complete Guide to Elasticsearch • Udemy

Jul 2018 - Present

Honors & Awards

Spot Award • Infineon Technologies • Apr 2019

Spot Award for my contribution towards the development of "Pre-assembly-Assembly-Release-Information-System" for DSS Department.

Spot Award

Spot Award • Infineon Technologies Pvt Ltd • Apr 2014

Spot Award and appreciation letter for my contribution to "Data Harvesting and Mining Projects with Kapow" from Infineon Technologies Software Team

Spot Award