Ashutosh Patel

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Data Scientist

# Professional Summary

# Providing data-driven, action-oriented solutions for challenging business problems.

# Microsoft and IBM certified Data Scientist with 4+ years of experience in building and deploying intelligent solutions. Highly skilled in Data Analysis, Visualization, Machine Learning and Statistical modelling. Familiar with Big Data integration with Cloud platform to build and deploy predictive models.

# Expertise

# Statistical Modeling Big Data

# Experiment Design Data Visualization

# Machine Learning Algorithms Data Mining

# Neural Network Computer Vision

# ****Professional Experience****

## Deloitte US| 4th November 2019 – Present

**Deloitte Cognitive Tax – Semi Supervised Learning**

CognitiveTax Insight™ (CogTax) provides an increased, improved, and more efficient analysis of clients indirect tax data set. It leverages OCR, along with advanced machine learning algorithms and analytics, to effectively analyze a full population of data and documents to assist clients with indirect tax overpayment recovery and reduce the potential for future over or underpayments.

* Build unsupervised model using KMeans, MeanShift and Birch to identify the potential clusters between unstructured invoice data.
* Automate the process of manual tax labelling for classification task.
* Implement Multiclass Logistic Regression to identify the taxability status based on transactions details.
* Identify key drivers/features in classification and present to Business Team through appropriate visualization.
* Implement statistical projection methods to reduce the dimensionality of data.
* Code migration from Python to PySpark.

## UEI Universal Electronics Pvt. Ltd.| 12th August 2019 – Present

**Predictive Analytics – Smart Home Automation**

* Build a pipeline for data integration from remote SQL source.
* Perform data wrangling, preprocessing to format it well for modelling
* Perform hypothesis testing to understand the pattern in data.
* Build a feed forward multilayer neural net to predict target class.
* Deploy the model using Azure Container Instance and Azure Kubernet Service.
* Learn team play and mentorship.

**Accenture Solutions Pvt. Ltd. | 18th May to 11th August 2019**

**Computer Vision Application – Smart Digital Billboards**

* Develop a sophisticated and highly efficient convolution neural network based on Resnet50, Inception V3, YOLO architecture to detect and localize objects using Transfer Learning technique.
* Build own deep neural network on Keras, tensorflow framework to classify objects.
* Pattern extraction and digit recognition from image data using Tesseracts OCR.
* Perform process optimization and model integration.

**Big Data and Data Engineering**

* Build data engineering pipeline using Azure Databricks service in Apache Spark environment.
* Perform exploratory data analysis, feature engineering, statistical test for data modelling.
* Code conversion from Python to PySpark environment.
* Build logger to capture logs in the pipeline.
* Develop code for optimized performance and harvest the power of parallel computation.
* Process big data (> 10 TB) by integrating Azure Data lake, Data Factory and SQL Warehouse.

**Supply Chain Analytics and Management**

* Develop intricate algorithms based on deep dive statistical analysis using Azure ML Services to prevent failures in SAP Hardware Returns Orders (HRM).
* Build time series and linear modelling to forecast SAP HRM.
* Analyze and process complex data sets using advanced querying, visualization and analytics tools.
* Automate and optimize the supply chain management.
* Identify, and recommended improvement strategies for KPIs across different business areas.

**Teaching Appointments**

* Deliver Classroom Trainings on Data Science Tool-kit.
* Deliver Green Field Trainings to entry level new joiners.
* Develop wiki documents.
* Work as an integral part of Learning and Management Team.
* Research and Case Studies on Business/Industrial problems and provide data driven solutions.
* Work on various IoT implementation use cases using cloud platform such as Azure.

**Education**

M.Tech, Data Science and Engineering (in progress) April, 2019 – April, 2021 (expected)

Birla Institute of Technology (BITS), Rajasthan

Micro Masters Data Science (in progress) May, 2020 – Oct. 2021 (expected)

University of San Diego, California

B.Tech, Electronics and Communication Engineering April, 2012 – April, 2016

Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar

CGPA : 7.53

# IEEE Publication

Ashutosh Patel, Pranw Kumar, Madhusmita Senapati**, “Rectangular shaped core photonics crystal fiber with zero dispersion and high Birefringence”** using complex data mining**,** International Conference on Intelligent System and Control (ISCO’16), 7 & 8th Jan. 2016, Coimbatore, India.

**Data Science Tools/Language**

Data Science tools : Python, PySpark, SQL Cloud Platform : Microsoft AzureML Frameworks : Tensorflow, Keras Visualization : matplotlib, bokeh, seaborn Programming Languages : C, Python Reporting : Power BI

**Certification**

1. Advance Machine Learning and Signal Processing

Date: June 14, 2019

Issued By: IBM

1. Scalable Data Science

Date: June 28, 2019

Issued by: IBM

1. 70 – 774 Perform Data Science using Azure Machine Learning

Date: June 27, 2018

Issued By: Microsoft Corporation

1. Supervised and Unsupervised Learning

Date: 24th September 2018

Issued By: DataCamp

1. Master Computer Vision using Machine Learning and Python

Date: October 10, 2018

Issued by: Udemy

1. Deep Learning with Keras

Date: 19th October 2018

Issued By: DataCamp

1. 532 – Developing Microsoft Azure Solutions

Date: September 9, 2016

Issued By: Microsoft Corporation

**Accomplishments**

* Microsoft Spotlight – Inspiring Teacher | 2018

Delivered Classroom Trainings on Data Science (Machine Learning and Deep Learning).

* President of Optical Society of America Student Chapter, KIIT. | 2015 – 2016
* Author: Together Forever

I hereby **declare** that the above information is true and best of my knowledge.