# Sidharth Singh

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# **Profile Summary**

A detail-oriented and commercially aware professional with five years of total experience in prototype, android app and chatbot development and 3+ years of relevant experience in Machine Learning using python and R with zeal towards programming and ability to adapt new technologies.

#### **Skill Set**

- Predictive and Statistical Modelling
- Natural Language Processing(NLP)
- TextAnalytics
- Time Series Analysis
- Android app development
- Regularization
- Hands-on: Git, Postman, jupyter notebook
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- Classification Techniques: Logistic Regressionn, SVMs, Decison Trees, ensmbles, Naive Bayes
- Regression Techniques: Linear Regression
- Unsupervised Learning: Clustering, Association Rule Mining, Collaborative Filtering, Recommendation Systems
- Chatbot DevelopmentData Analysis : Pandas
- Visualization : Matplotilb, Plotly

#### **Tools**

Programming/scripting: Python, R, Java

**SQL/Database:** MySQL **IDE:** Android Studio

### **Education**

Level	Board/ University	Year Of Passing
Secondary	CBSE	2008
Higher Secondary	CBSE	2010
B.Tech	Manav Rachna International University	2014

### **Work Experience**

# APPLICATION DEVELOPMENT SENIOR ANALYST (Nov 2014 – Oct2019) Accenture Solutions Pvt Ltd

Responsible for proposing new ideas and creating proofs of concept(POCs), engaging android apps, data-driven products, and taking them from requirement gathering to productization using available tools like Android, R, Python, and Java. Thus, infusing innovation into the client business.

# The Similarity Checker(Argos):

The aim was to build an Intelligent system to suggest a similar change request from the backlogs to one on which an associate is currently working. This helped to reduce the backlogs of defects and improve the efficiency of the team.

- I extracted out the change request data from various data sources.
- Analyzed and processed the collected data composed of text (CR Summary & Description) written by associates/clients, which are unstructured.
- Used NLP techniques like tokenization, stemming, lemmatization to prepare the text data.
- I have implemented corpus, TF-IDF algorithm to make a term document matrix from the cleaned and processed text
- processed text.
   Used cosine similarity as the parameter to find out the similarity amongst the Change requests.

# <u>Turn-Around-Time Analyzer(Bose):</u>

The objective was to build a smart application that can classify the incoming JIRA (text data)into predefined two categories of Tum Around Time (TAT), which ultimately can help the solution team to know the complexity of the incoming JIRA as TAT is proportional to the complexity of the JIRA.

- I extracted out the JIRA data from data sources of the last two years for five different solutions.
- Analyzed and processed the collected text summary and description of collected JIRA.
- Prepared and cleaned the text data using techniques like tokenization, lemmatization, and removing out of some junk words from data to reduce noise.
- Divided data into 80% training, 10% validation, and 10% testing sets.
- I have implemented a corpus, TF-IDF algorithm to make a term document matrix from the cleaned and processed text.
- I have built a binary classifier using the Random Forest Algorithm.

#### The Sleepbuds App(Bose):

Created an android mobile app for Bose. The application was for sleep buds, where the user would connect to those buds and play soothing sounds from the app's sound library. Here I worked as a senior developer and developed the complete audio library module

**IDE:** Android Studio

# Alexa Chatbot(Argos):

The idea was to develop a chatbot to replicate the whole customer journey to provide a seamless user experience. To achieve that, we created an Alexa skill and transformed the entire customer journey from webbased to voice-based.

**Research**: Studied the natural language processing model of Alexa skill kit to understand the request-response mapping.

IDE: Amazon developer console

# AR app(Argos):

The main objective was to add an augmented reality(AR) functionality to the Argos app. The intent was to improve the user experience so that the user can see the product in 3D and visualize how it would look in his surroundings

**Research:** Studied how horizontal plane detection is carried out by ARcore and developed a prototype to recognise vertical planes using the same.

IDE: Android studio

### **Product Search(Argos):**

The objective was to implement a barcode-based search functionality into the app as we wanted that when a user visits a store and sees a product, he should be able to see the price of the product just by scanning the barcode present on the product.

IDE: Android Studio

External Libraries: Zxing library to create the barcode scanner

#### **Achievements**

- Awarded the Accenture Celebrates Excellence (ACE) Innovation award for contributing to the innovation agenda resulting in solutions, ideas, and improvements to the organization.
- Awarded the Accenture Celebrates Excellence (ACE) client and customer award, for outstanding contribution to the client's business outcomes.