

# HARIKA SAMALA

## SENIOR DATA SCIENTIST

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## CAREER SUMMARY

A passionate data scientist interested in solving NLP based problems. Looking for opportunities to enhance domain skills by providing assuring service to company.

## EDUCATION

### Graduation at PES University Bangalore

- **Computer Science and Engineering**      Score: 7.7 CGPA
- Intermediate Education, Andhra Pradesh      Score: 97%
- Secondary School, Andhra Pradesh      Score: 9.8 (GPA)

## WORK EXPERIENCE

### Niyo Solutions

### Senior Data Scientist

📅 Apr 2020 – Present

📍 Bangalore, India

- Niyo Solutions is a Fin-tech company providing platform for traditional banks to provide digital and technical banking experiences.
- Working on building conversational AI Chat bot using NLP to enhance customer experience.
- Working for Niyo money app to recommend users about mutual funds and stocks through our platform.
- Data Science Lead for Niyo Money APP Product
- Mentoring three candidates for other verticals of Niyo Products.

### Youplus Inc

### Data Scientist

📅 July 2017 – Feb 2020

📍 Bangalore, India

- Youplus built **Video Opinion Search Engine** with product View which is a widget providing short-form consumer review videos to websites.

#### Model Development

- Built **Information Retrieval system** from scratch for view product using Elastic Search to retrieve the best relevant videos among million of videos for given page.
- Worked on distillation of Bert using Distil Bert methodology for **category classification model** which organizes data based on its product category.
- Developed a end to end pipeline POC for a product VIEW Non-Ecommerce and made it as a service using Flask and also used Redis for queuing next actions.

**Technologies** Elastic Search, MongoDB, BERT Model, Tensor Flow, NLP, BM25, Pyspark, DistilBert, Redis, Flask, MongoDB

**Achievement** Excellence Award 2019.

## INTERNSHIP

### Intern at IISc Bangalore

📅 March – December 2016

- Intern under ANRC(Aircraft Network Research Consortium) under the Boeing-IISc-HCL-Wipro Research initiatives in India for project **ON BOARD STREAMING VIDEO PROJECTION**
- Ideology is if position of the user is given then irrespective of projector's position and nature of the surface image is shown perspectively correct on the projector of Airplanes having curved surfaces

## DEEP LEARNING TUTOR

### Business Toys Private Limited

📅 May 2020 – Present    📍 Bangalore, India

- On Weekends I will teach and mentor both students and experienced employees.

## DATA SCIENCE PROJECTS

### Siamese-Network-To-Identify- Duplicate-Question-Pairs

- Identify Similar Question Pairs using **Siamese Neural Network** having two identical neural networks, each network taking one question.
- The last layers of the both networks are fed to **Manhattan Lstm model**, predicting the similarity between questions with relevance score.

### Category Classification For Products

- Classifying data to their respective product category for organization of data.
- Developed the model using BERT since **BERT model** is taking more time to infer the results tried to optimize the model to smaller model by recent technology **DistilBert** without down fall of actual accuracy and thereby reducing the time to retrieve results.

### Intensity Based Sentiment Analysis

- Solving binary sentiment problem is easier but predicting the Intensity of the sentiment (if sentence is highly positive, positive, neutral, negative and highly negative) is tough problem where research is done to smaller extent.
- Developed Intensity Model using Bert fine tuning approach which crossed the state of Art model results along with distillation into the light weight model.

## OTHER PROJECTS

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### Chat Bot conversational Layer

- With the help of Nlp created a layer of sequence of understanding customer intent by and mapping the intent to categories
- Created a dashboard for analyzing weekly status of chat bot unanswered questions and mapping back this questions back to knowledge base.

### Search Engine Using Elastic Search

- Developed an Search Engine from scratch to search Education blogs to find most relevant results for given search term.
- Worked on scraping the data,Cleaning data, Data visualization.Designing simple web page for showing retrieved results.
- Able to sync real time data from mongoDB to Elastic search using Monstache.

### Pothole Detection -Image Processing

- Applied Contour detection and Canny edge filter algorithms in Open CV to alert the vehicle driver in the presence of potholes and informing higher authorities same by mail generation.
- Selected for National Level Hackathon held at PES college

### Coreference Resolution

- Developed co reference model to replace pronouns with their respective antecedents.
- During First phase implemented End to End Neural co reference model by using span representations for text in co reference architecture. To optimize performance constraints developed another model using **Span Bert Methodology**

### SHUF-CUPS, An Interactive Game

📅 August 2017      📍 Pesit

- An Interactive game where the user is shown with three cups and a ball in the initial position. Cups are allowed to shuffle and user is asked to predict the current location of ball.Based on the answer appropriate audio is played .
- Tools:C,OpenGL

### PROJECT SCI BASE, Active Team Member

📅 Feb 2016 - Dec 2017      📍 Pesit

- Project aim is to create a repository and web-dictionary of Scholastic Information System using Machine Learning.
- Worked on data creation,manipulation created graphical database.Have written the research paper on same under supervision of mentors
- Tools: Python, Neo4j,Scrapy  
Supervisor: Dr.Snehanushu Saha

## COURSES & CERTIFICATIONS

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- Certification of NLP in Tensor Flow From **deep learning.ai**
- Machine Learning and Deep Learning Coursera Course by Andrew NG
- Active Learning by B, Burr Settles
- Information retrieval by Manning
- Information Retrieval and Mining Massive Data Sets
- Searching & Analyzing Data with Elastic Search -Plural Sight
- Definitive Guide Elastic Search -Udemy
- Python - Coursera Specialization by Rice University
- Python - Zero To Hero and ML course - udemy

## ACTIVITIES

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- Participating in NGO Activity Say Trees Plantation by planting Saplings in Bangalore over weekends
- Participated in Teaching and maintenance activities of Govt school during weekends.

## BLOGS

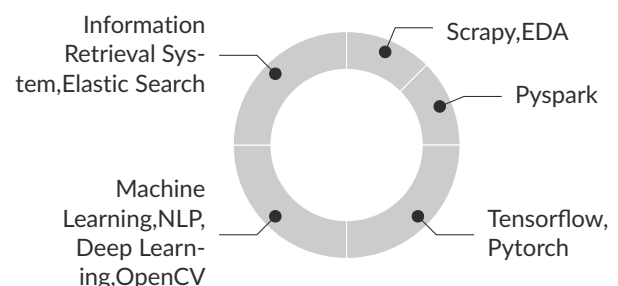
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- Writing the summary of top research papers and latest technologies in Artificial Intelligence with clear visual representations and explaining the content in layman terms as in mentioned link.

📖 <https://medium.com/@harika3196>

## DATA SCIENCE SKILLS

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## SOFTWARE SKILLS

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