# Samanth Reddy Karra

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# **EDUCATION**

Rutgers University, New Brunswick, NJ

Master of Science in Computer Science

Aug 2018-May 2020

Relevant Coursework: Introduction to AI, Mass Data Retrieval and Deep learning, Data Structures and Algorithms

# Indian Institute of Technology, Guwahati, India

July 2013-May 2017

Bachelor of Science in Electronics and Communication | GPA: 8.16/10

### **EXPERIENCE**

Machine Learning Engineer, Samsung R&D, Noida India

May 2017- July 2018

- Contextual Awareness Engine in Samsung Music Player App:
   Single handedly designed and implemented a contextual awareness engine which recommends songs in Samsung Music Player App based on location, time, weather, user data, meta data etc
- Voice Activity Detection:

Done a project on detection of user voice and reduce the audio levels in earphones when the user is listening to music or speaking on call. The detection is done using the GMM Models.

# Research Intern, Indian Institute of Science, Bangalore India

May 2015-July 2015

Automatic Image Caption Generation:
 Identified the objects in the image using a very large neural network and a recurrent neural network like LSTM to turn the labels into a coherent sentence.

# **PROJECTS**

# PCB Defect Detection and Classification using Deep learning

Aug 2016 – May 2017

• Detected the defect and classified the defect type in the Printed Circuit Board defects using neural networks. GUI is developed so as to develop a complete application for end use facilitating its portability and easy to use.

### HDLSS analysis of gene expression data

Jan 2016 – May 2016

 Analysed in detail about the features and built a stacking classifier for cancer vs no cancer patients for HDLSS data using techniques like Ridge, Random Forest, XgBoost, DecisionTree etc..

#### **DTMF Based Home Automation**

Nov 2015

Presented at Techevince 2.0, an annual technical exhibition of IIT Guwahati

• Created an automated home, where user will have the access over appliances in a house with the help of DTMF based communication

# Face Recognition using PCA Analysis

Sept 2015

• Implemented Eigenfaces approach for face recognition to identify people in industry. Eigenfaces are extracted from the stored images using which the system is trained for subsequent recognition of new images.

## **Natural Language Processing project**

Jan 2015-May 2015

 Built a tool to parse various online newspapers to extract the information pertaining to Northeast India. Implemented LDA to develop an algorithm to automatically find the major and minor issues from the data collected

# Pattern Recognition using Bayesian Classifier

Nov 2014

• Built a pattern recognizer by exploring out on the Bayesian classifier concepts and maximum Likelihood techniques.

## TECHNICAL SKILLS

Programming Languages: C, C++, Matlab, Python, SQL, Scala, PySpark

**Operating Systems: Windows, Linux** 

Miscellaneous: Keras, Tensorflow, Numpy, Pandas, PyTorch, Sklearn, LightGbm, XGBoost

### RELEVANT COURSEWORK

• Advanced Machine Learning • Pattern Recognition and Machine Learning • Computer Vision • Image Processing • Probability and Random Processes • Introduction to AI • Mass Data Retrieval and Deep learning

Other: • Introduction to Computing • Portfolio and Performance Analysis • Advanced Data Science

• Artificial Intelligence and Reinforcement learning-Udemy

# LEADERSHIP EXPERIENCE

- Active member and Mentor of the Machine Learning Club, IIT-Guwahati
- Organized Technothlon-2013,an International School championship exam in Mancherial City for more than 500 students and conducted workshops