# AYYAPPA SUMANTH BHUMA

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#### **EDUCATION**

Syracuse University Syracuse, NY

Master of Science August 2021 – December 2022

Major in Applied Data Science, Minor in Language track

Relevant course work: Natural Language Processing, Text Mining, Quant Reasoning, Applied Machine Learning, Applied Deep Learning, Business Analytics, Financial Analytics, Big Data Analytics, Database Management, Data Science Project Management

Indian Institute of Technology Jodhpur, India

Bachelor of Technology

July 2015 - May 2019

Major in Computer Science and Engineering

Relevant course work: Data Structures and Algorithms, Algorithm Design and Analysis, Operating Systems, Data Communication, Computer Organization and Architecture, Software Engineering, Artificial Intelligence

### **EXPERIENCE**

Coder's Data Cheyenne, WY

Data Analyst – Internship

July 2022 - December 2022

- · Developing and implementing data analyses, data collection systems and other strategies that optimize statistical efficiency and quality
- · Working in the growth team, created metrics for several funnel and deployed dashboards to track them
- Collaborated with product team in analyzing performance
- Been a part of building marketing metrics pipeline to analyze campaign success
- · Automated several tasks using Airflow

Tech Mahindra Hyderabad, India

Data Scientist

July 2019 - August 2021

- Utilized python backend frameworks including flask and open-API to create APIs for various Speech and NLP models; employedRabbitMQ and Python's Celery in building the APIs
- · Familiarized with Docker and installed several docker images; managed several docker containers using docker compose files
- Performed EDA on text data, generated data visualizations using R, Python and created dashboards using tools like Tableau
- Utilized various web scraping techniques to extract and organize audio and text data; employed alignment techniques in python and collected speech data of over 10 Indian languages
- Delivered a Text Normalization model for a Text to Speech (TTS) system; Leveraged Google's Sparrowhawk in building model
- Researched on telugu language text (native Indian language) in identifying use and effect of out of vocabulary (OOV) words in a native language
- Extracted domain- and location-specific information from a database of news items operating PostgreSQL's full text search.

### **PROJECTS**

- Constructed a classification system to detect fake news from a list of news articles; Built Bidirectional LSTM and attention-based LSTM models for the classification
- Studied on online processing of large amount of data using Apache storm (batch processing vs stream processing)
- Researched on Convolution Neural Networks (VGG16 in particular) in order to classify multiple variables of image data at the same time and built a multi label binary classification model
- Developed a database in Azure SQL for higher-level supply chain management and designed an Android app to manage the database using Azure's Power Apps platform

### **SKILLS**

- Analytics: Descriptive and Inferential Statistics, Hypothesis Testing, Exploratory Data Analysis (EDA), Feature Selection, Text Mining,
   Web Scraping, Statistical tests, Model Evaluation Methods (F1, ROC, Precision-Recall), Bigdata (HDFS, Map-Reduce, Apache Spark)
- Machine Learning: Regressions, Decision Trees, Clustering, Random Forests, Support Vector Machines (SVM), K-Nearest Neighbours (KNN), Bayesian Methods, Natural Language Processing (NLP), Deep Learning (CNN, RNN, LSTM, Attention based models (BERT))
- Tools and Frameworks: Python (NumPy, Pandas, Matplotlib, sci-kit, SciPy, NLTK, TensorFlow, Keras, Pyspark), R, C++, Tableau, Flask, Celery, Docker

## EXTRA CURRICULAR ACTIVITIES

- Acted as the president of the Association for Computing Machinery (ACM), a student body at Syracuse University, where I planned events
  and lectures attended by tech industry professionals
- Volleyball: played in University Club Team (2015-2018)
- · Functioned as a college festival's technical head and organized several technical workshops and tech events