

Harish Hasti

harishhasti8@gmail.com | LinkedIn | Github | PortFolio | 919-931-5267 | Raleigh, NC

EDUCATION

Master of Computer Science

January 2021-December 2022

North Carolina State University, Raleigh, NC

3.5/4.0

Courses: High Performance ML(Tiny ML with intro to NNI and TFLite), Software Engineering, DevOps, NLP, Database

Post Graduate Program in Artificial Intelligence and Machine Learning

November 2019 - November 2020

The University of Texas, Austin

4.0/4.0

Bachelor of Technology

July 2015 - April 2019

Sri Venkateshwara University College of Engineering, India

8.11/10.0

TECHNICAL SKILLS

Languages:	Python, SQL, React, Java, JavaScript, HTML, CSS, MATLAB, C, C++
Tools & Frameworks:	Docker, Ansible, Git, Jupyter Notebook, Rest API, Oracle Virtual Box, AWS LAMBDA, DynamoDB, Node JS, Ansible, Linux, Bash, Visual Studio Code, TypeScript
Databases/ Big Data:	MySQL, MariaDB, MongoDB, DynamoDB, Hadoop, Hive, PySpark, Kafka
Machine/ Deep Learning:	Keras, Tensorflow, HuggingFace, PyTorch, LSTM, BERT, Transformers, CNN, RNN, Pandas, NNI, Numpy, Matplotlib, Seaborn, Scikit-learn, EDA, XGBoost, Tableau

PROFESSIONAL EXPERIENCE

Data Science Intern, BeyondSoft Consulting Inc., Bellevue

June 2022 - October 2022

- **Deep Learning** Performed feature engineering to develop advanced Forecasting models such as Temporal Fusion Transformer (Attention based Transformer architecture for Time Series Forecasting) from scratch in TensorFlow, Prophet - Stats based Forecasting to efficiently predict the workforce required in a customer call center.Improved the model performance to confidently utilize the predictions for workforce management.
- Experimentation is performed to analyse the importance of the time stamp features versus the categorical features.
- Coding the bash scripts to automate the training and testing process of Machine Learning Algorithms
- Built Restful API's as a proof of concept to forecast the call volume and the staff required

Graduate Research Assistant, NC State Department of Computer Science

August 2021 - December 2021

- **Crawling Data and EDA** Incorporated push shift API in Python to crawl posts from multiple subreddits such as Asian American, Racism. Annotated posts by developing handcrafted features and semi-supervised learning
- **Modelling** Classified Reddit posts by developing machine and deep learning models such as SVM, Naive Bayes, Decision Trees, LSTM, Bi-LSTM, ANN in TensorFlow to improve the test accuracy by 40%

PROJECTS

DevOps (CI/ CD) - Pipeline

- Provisioned the virtual machine from scratch, set up the requirements, performed mutation testing, and Deployed the application to cloud using a staging server.

Chat Bot

- Designed an interactive library bot that helps naive NodeJS users or programmers find the appropriate software library
- Hosted the bot on a mattermost chat server using a serverless architecture

Database Design for Commercial warehouse

- Designed systematic and entity relation design and JDBC implementation to create and maintain an inventory of a store such as product returns, stock transfers, cancellations of memberships. Implemented different user roles for specific functionalities like transaction history based reward and customer bill generation incorporating discounts.

E-bay BSPL Protocol

- Developed BSPL protocol in Python, which involves enactments of eBay transactions between buyers, shippers, and merchants by creating autonomous agents
- Handled edge cases such as users canceling the order before the shipment and refunding for defective products.
- Deployed the project in AWS servers and lambda function logs, records in DynamoDB are used to check for safety and liveness of the enactment and flow of the protocol.

Automatic Ticket Allocation ([Code](#))

- Pioneered Natural Language Processing techniques to automate the allocation of support tickets to Incident Management IT service desk teams (L1, L2, and L3).
- Lifted the under-sampled ticket classes by 50% using SMOTE. Transformed the dataset of tickets into clusters of buckets based on the frequency of data distribution after performing Exploratory Data Analysis. Improved final test accuracy to 85%.

Face Recognition and Segmentation ([Code](#))

- Developed a system to build a face recognition and a detector that locates the position of a face in an image. Applied pre-trained deep learning architectures such as Mobile Net. Received a validation dice coefficient of 0.45.