Hitesh Kumar Balapanuru

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EDUCATION:

Master of Science, Artificial Intelligence Sep 2021 - present
University at Buffalo, Buffalo, USA CGPA: 4.0/4.0

Bachelor of Engineering, Electronics and Instrumentation Aug 2014 - June 2018
Birla Institute of Technology and Science, Pilani, India

TECHNICAL SKILLS:

Languages: C, C++, R, Python
Tools and Frameworks: TensorFlow, PyTorch, scikit-learn, NLTK, spacy, Numpy, Pandas, Docker
AWS services: SageMaker, S3, Lambda, RDS, API Gateway, Glue, EC2, Comprehend, Forecast
Databases: PostgreSQL

PROFESSIONAL EXPERIENCE:

Senior Machine Learning Engineer, Quantiphi Inc, India Oct 2020 – July 2021

- Developed **MLops Framework with** code and AWS services components for Insurance Client to Train and Deploy Machine Learning REST APIs for Accounts-At-Risk & Suggestive Selling on DataRobot
- Elevated multiple Machine Learning pipelines into the production environment following CI/CD practices
- POC - Developed **NLP pipeline** to extract entity and article-level sentiment of Financial Articles
- Interacted with Business client companies for **requirement gathering**, Design POCs

Machine Learning Engineer, Quantiphi Inc, India July 2018 – Sep 2020

- Developed Forecasting models[LSTM, ARIMA, Heuristic, DeepAR+] for Forecasting Engine with 1 Million Time Series and showed an **improvement of 4% in error metrics** compared to the baseline model
- Productionalized Inference script to deploy on AWS SageMaker **reducing the batch inference time to 4 Hours**.
- Designed Machine Learning Solutions for **Cold Start Time Series Forecasting** and achieved a MAPE of 20%
- Benchmarked GPU AWS instance types and Elastic Inference Compute types for CNN architecture based Inference Deployment, used across multiple projects to decide instance type thus **reducing the inference cost**

Undergraduate Intern, Intel Corporation, India Jan 2018 – June 2018

- Worked on Component Selection, Power Supply Design, Schematic Entry for PCB design, Board bring-up, Power up, System-Level testing of **Haptics Actuator Developer kit** for VR gaming Laptop

ACADEMIC PROJECTS:

Re-ranking Music Recommendations Based on Individual Stress Level Nov 2021 – Dec 2021

- Built stress level classification model based on Heart Rate Variability Metrics data from SWELL Dataset
- Designed a **Re-ranking algorithm** based on attributes of songs from user Spotify playlists
- Developed Web App using HTML, Flask, **Spotify API**, python

Image Classification module for self-reconfigurable robot Jan 2017 – May 2017

- Replicated ciratefi- RST-Invariant Template Matching code implementation to create a baseline.
- Created a balanced dataset of 800 images of 4 objects.
- **Transfer learning** - retrained top layer of Inception v3 model on captured images
- Developed a working model for **real-time inference** using Pi camera, Raspberry Pi 3, remote server

CERTIFICATIONS

- AWS certified Machine Learning - specialty (Credential ID -2NGJFLDC3BVQ1J9C)
- NVIDIA Fundamentals of Accelerated Data Science with RAPIDS
  (Credential ID -087840cd726744eca4b8cbdae8b09b7c)