

HARIHARAN NAGASUBRAMANIAM

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EDUCATION

SRM Institute of Science and Technology

Chennai

B. Tech Computer Science and Engineering, GPA – 7.90/10.00

July 2017 - Jun 2021

Coursework taken: Data Structures, Algorithm Design Analysis, Object Oriented Programming, Operating Systems, Python Programming, Theory of Computation, Machine Learning, Pattern Recognition Techniques, Artificial Intelligence

SKILLS

Programming Languages and Scripting: Python, Java, C, C++, MATLAB, Bash, SQL, Selenium

Operating Systems: Windows, Linux

Technical Tools: Azure, Google Cloud, Git VCS, Pytorch, TensorFlow, Pandas, PySpark, Django, Kivy, Tkinter, Pygame

EXPERIENCE

Dun & Bradstreet Technologies & Data Services Pvt. Ltd.

Chennai

Data Scientist - I

Aug 2021 – July 2022

- Developed and improved multiprocessing web crawlers at large scale to obtain ESG relevant data for over 2.5 million companies, effectively handling 60% of the company's Internet Based Data.
- Compiled and deployed single efficient UDF in PySpark to improve existing Reason Code production speed by over 30% with the inclusion of revised logic.
- Constructed NLP pipeline for end-to-end extraction of relevant data by processing ESG Reports and News from over 200k companies for more than 15 markets around the world.
- Implemented SIC method in production code to shortlist over 5M businesses involving Controversial Activities.
- Developed multiple efficient UDFs to compile Self-Assessment Questionnaires from individual companies, effectively handling over 50% of new source for scoring conversion.

PROJECTS

Image Deblurring

Oct 2021 – Nov 2021

- Implemented an end-to-end Encoder-Decoder model for restoring blurred images with a PSNR of 86%.
- Implemented encoder with Vision Transformer backbone using Pytorch.

Bokeh Rendering

Jul 2021 – Sep 2021

- Implemented an end-to-end Vision Transformer model for Bokeh Rendering to highlight the subject of an image.
- Established state-of-the-art results with the proposed method on EBB! Dataset with minimal computation time by denouncing the use of depth estimation.

Snake Game and Gym Environment with DRL

Jun 2020 – Sep 2020

- Developed a model free self-learning snake game and two distinct environments in the Gym Library from OpenAI with Deep Q-Networks under Reinforcement Learning.
- Implemented the Bellman Equation for Deep Q-Learning using Python, TensorFlow, Keras, Convolutional Neural Network, NumPy, and OpenCV.

Text Classification for Sentiment Analysis

Dec 2019 – Feb 2020

- Trained a Binary Classifier model to analyze and classify sentimental tweets from Twitter Data with NLP.
- Developed using Python and Tweepy for Twitter API to connect and obtain the data and used TensorFlow, Keras, NumPy, TensorFlow Hub, and TensorBoard for training and classification.

CERTIFICATIONS

- Google IT Automation Certificate**, (Google), Coursera, **Jun 2021**
- Microsoft Certified: Azure Fundamentals**, Microsoft, **May 2021**
- DeepLearning.AI TensorFlow Developer Certificate**, (DeepLearning.AI), Coursera, **Sep 2020**
- Machine Learning**, (Stanford Online), Coursera, **Sep 2020**
- Google Cloud Platform Big Data and Machine Learning Fundamentals**, (Google Cloud), Coursera, **Jun 2018**

AWARDS

- Secured 1st place in school and won gold medals for two consecutive years in 17th and 18th “**National Science Olympiad**” with 95.75 and 98.53 percentile scores, Science Olympiad Foundation, **2013-2014**
- Secured 1st position in school amongst 300 students; was among top 1 percentile in state in “**Byju's Think and Learn Challenge**”; awarded Samsung Galaxy Tab worth 20000 INR & scholarship to Byju's Coaching Institution, **Jan 2014**