

Harish Prakash

<https://github.com/harsha-prakash>

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EDUCATION

- **SRM Institute of Science and Technology** Chennai, India
Bachelor of Technology in Electronics and Communication Engineering; GPA: 8.2/10.0 July. 2017 – Present
- **Srimathi Sundaravalli Memorial School** Chennai, India
Grade 12; Obtained Grade: 87.5% Jun. 2016 – May. 2017
- **Srimathi Sundaravalli Memorial School** Chennai, India
Grade 10; CGPA: 10/10 Jun. 2014 – May. 2015

PROFESSIONAL EXPERIENCE

- **Aara Tech Private Limited** Chennai, India
Data Science Research Intern Dec. 2019 - January. 2020
 - Worked in the Logistics Sector to develop an end-to-end model for choosing warehouses based on population clusters in a given topography
 - Developed a new clustering technique using **Unsupervised Learning** techniques for determination of optimized candidate locations
- **TakenMind Technologies** Virtual
Data Analyst July. 2019
 - Analyzed and Visualised data in **Python** using Pycharm IDE on various datasets; used **Tableau** for creative plot visualisations
 - Became familiar with NumPy, Pandas, Matplotlib, scikit-learn and other basic **libraries** for data preprocessing and visualisation
- **Brakes India Private Limited** Chennai, India
InPlant Trainee (ML applications) June. 2019
 - Understood the applications of **Machine Learning** in brake shoe testing rigs deployed for fault detection and performance measurement; observed multi-component assembly lines
 - Developed 3D projections of brake shoes in advanced designing softwares – Catia-V5 and AutoCAD

TECHNICAL PROJECTS

- **Sound-based Bird Classifier using Transfer Learning** Chennai, India
Undergraduate Thesis (Ongoing) August. 2020 – Present
 - Currently working on a model to preprocess audio signals and identify bird species based on spectroscopy and multi-label image classification
 - Planning to implement Transfer Learning and deep CNNs to achieve state-of-the-art accuracy
- **An Ensemble Clustering Model for Warehouse Location Determination** Chennai, India
Pending Submission Dec. 2019 – Mar. 2020
 - Developed an **unsupervised clustering algorithm** based on density-based spatial clustering of address points to identify an ideal warehouse candidate location
 - Considerable CPU time reduction was achieved in contrast to similar iterations with existing clustering techniques under similar conditions

FREELANCE PROJECTS

- **Hand-written Digits Recognizer:** Created a neural network model to predict handwritten digits with 90% accuracy
- **Dogs & Cats Breed Classifier:** Trained ResNet34 with Transfer Learning to differentiate dog and cat breeds
- **Predicting Artists from Artworks:** Worked on Kaggle Dataset using fastai-v2 to achieve state-of-the-art accuracy
- **Prediction of Rt for COVID-19:** Implemented Realtime Effective Reproduction Number (Rt) using Indian Datasets
- **Employee Attrition Prediction:** Analysed and visualised data to predict factors behind employee attrition
- **Recommender Systems:** Implemented different recommendation techniques for movie recommendations
- **Flower Classifier:** Scraped images from google to classify different flowers through image classification techniques

PROFESSIONAL DEVELOPMENT

- **Coursera** MOOC Platform
Deep Learning Specialization June. 2020 – Aug. 2020
- **Coursera** MOOC Platform
Infectious Disease Modelling Specialization June. 2020 – Aug. 2020
- **Indian Institute of Remote Sensing, ISRO** Distance Learning
Basic Principle of Remote Sensing June. 2020
- **National Programme on Technology Enhanced Learning** MOOC Platform
Data Science for Engineers; Intermediate Python Jul. 2019 – Sep. 2019
- **National Programme on Technology Enhanced Learning** MOOC Platform
Introduction to Machine Learning Jan. 2020 – Apr. 2020

TECHNICAL SKILLS

- **Languages:** Python, R, C++, C, SQL **Softwares:** Pycharm, Conda, Visual Studio
- **Web Applications:** Jupyter Notebook, Google Colab **Simulations:** Matlab, Octave, AutoCAD
- **Libraries used:** Fastai, Pytorch, Tensorflow, Keras, scikit-learn **Parallel Programming:** CUDA

POSITION OF RESPONSIBILITY

- **Head Organizer, Literary Club** Jan. 2018 - June. 2019
 - Event Coordinator for literary events in Milan'18 and Milan'19 - an inter-college national cultural fest
 - Spearheaded IMPACT'18 - A debut national level debate competition by SRM
- **School Pupil Leader** June. 2016 - Mar. 2017
 - Voted by majority to spearhead and lead high school decision committees
 - Planned, coordinated and led the high school contingent in cultural, sports and competitive events

VOLUNTEER EXPERIENCE

- **U&I** July. 2019 – Apr. 2020
 - Volunteered for 2 hours/week to teach basic education for underprivileged children under 6th grade
 - Conducted workshops, facilitated social events and worked with co-volunteers to build sustainable lesson plans
- **Swachh Bharat Mission** June. 2018 – July. 2018
 - Participated in Indian government's program to attain universal sanitation for 100 hours
 - Led a team of 10 members, adopted a village (Sithalapakkam, Chennai) and extensively campaigned for hygiene awareness; organized competitions and created a cleanliness drive to sanitize multiple areas.