



Karthika Menon

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Education

❖ SSN College of Engineering (SSN), Chennai

Aug 2018 - Jul 2022

B.E. Computer Science and Engineering
CGPA: 8.9/10

❖ Gregorian Public School, Kochi, Kerala

XII Grade

Jun 2017 - Mar 2018

Percentage of Marks: 95.4%

Subjects: Mathematics, Physics, Chemistry, Computer Science, English
AISSCE School Topper in Science Stream; Subject Topper in Chemistry

X Grade

Jun 2015 - Mar 2016

CGPA: 10/10

Projects & Work Experience

❖ Machine Learning Project on COVID-19 Diagnosis

Nov 2020 – Present

- Created a Deep Learning model using transfer learning from a pretrained Resnet-18 CNN architecture. The model carries out the image classification task of classifying chest X-ray images into Normal, Covid-19 and Viral Pneumonia classes. The project was written and executed on a Jupyter Notebook.
- The database was created by integrating Kaggle and IEEE datasets by utilizing python pandas library functions and further augmenting the images using OpenCV modules.
- Data poisoning attacks were performed on the model as part of an adversarial machine learning approach to mislead the model.
- Wrote a paper titled “COVID-19 Diagnosis from Chest X-Ray Images Using Transfer Learning of Convolutional Neural Networks” which has been submitted at the “International Conference on Computational Science and its Applications (ICCSA 2021)”.

❖ Training Programme for Sub Inspectors of Police, Cyber Crime Wing, TN

Jan 2020

- Volunteered at the training programme held by the Department of Computer Science and Engineering, SSN, for Sub Inspectors of Police in the Cyber Crime wing.
- Assisted the Professors during hands-on training sessions to impart knowledge about relational Database Management Systems (DBMS) concepts and data manipulation using Structured Query Language (SQL).

❖ Internally Funded Student Project

Jul 2019 – Present

- Built a sign language converter that enables an efficient form of communication for the deaf/dumb community.
- The project solves the computer vision task of image classification using python OpenCV modules, Keras and a customized Convolutional Neural Network.
- The project was developed on a Spyder Notebook and executed using a Raspberry Pi CPU.
- The gesture database for Indian Sign Language (ISL) was created from scratch by referring to the official website of ISL.
- Wrote a paper titled “Omilia - The Sign Language Converter” and presented it at the “International Conference on Smart Data Intelligence (ICSMDI 2021)”.
- The paper has been approved for publication in the ELSEVIER-SSRN Digital Library.

Positions Held

- Editor of ‘Smriti’, the official newsletter of the Dept. of Computer Science at SSN Jun 2020 - Present
- Actor at ‘Lights Out Please’, the theatre club at SSN 2019 - Present
- Cultural Secretary of Gregorian Public School 2015 - 2016

Achievements & Awards

- Fourth Prize in the ‘Ford GME Hackathon’, Ford Motor Private Limited’s annual hackathon 2019
- First Prize in the college-wide creative writing competition held by SSN’s English Litt. Club 2019
- Second Prize in poetry writing competition held at the district level by CBSE 2016

Technical Skills

- Proficient in C, C++, Python, Java, R, SQL, HTML, CSS, JavaScript, Node.js, React
- Working knowledge of MATLAB, PHP

Other Skills

- Excellent verbal and written communication skills
- Good at Literary and Cultural activities
- Enjoy working in teams