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Aditya Bharadwaj

CONTACT INFORMATION

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PROFESSIONAL EXPERIENCE

Nano Scale Device Research Lab, IISc, Bangalore, Karnataka, India. January 2020 – Present
Research Intern January 2020 – Present

- Responsible for exploring different ML algorithms to predict properties of nano materials.

GatewayVR, Mumbai, Maharashtra, India. May 2018 – June 2018
Software Engineering Intern

- Responsible for creating a web project, primarily making use of the Linux OS, Apache HTTP Server, MySQL DBMS and PHP.

EDUCATION

Manipal Institute of Technology, Manipal, Karnataka, India August 2016 – present
B.Tech in Computer Science and Engineering
Currently in 8th semester, having covered coursework such as OOP, Data Structures & Algorithms, DBMS, Operating Systems, Computer Networks, Distributed Systems. (CGPA 8.12/10.00)

PACE Jr. Science College, Mumbai, Maharashtra, India 2013 – 2015
Maharashtra HSC Board

Lions English School, Silvassa, UT of D&NH, India 2003 – 2013
CBSE Board (CGPA 10.00/10.00)

TECHNICAL SKILLS

Programming & Scripting Languages: C++, C, Java, Python, C#, OpenMPI, CUDA, PThreads, SQL, HTML, PHP, Shell Scripting
Operating Systems: Windows, Linux, Mac OSX
Frameworks & Tools: ASP.NET, Flask, Latex
Libraries: Tensorflow, Keras

PROJECTS

TapSearch: A program deployed as a web app that takes in paragraphs of text, stores them as documents, then stores a mapping of paragraphs to words on an inverted index. Allows the searching of a word, if the word is present, the document (paragraph) that it is present in is returned. All the documents can be viewed, added, deleted.
Speech Emotion Recogniton: Extracted features out of audio samples containing dialogues from a popular TV show, using a library called librosa, used these features to train a CNN to classify the emotions present in those dialogues.
Path Planning: Used flask to make a web app that implements a graph algorithm, and outputted the path covered, nodes on the web app. Used matplotlib to denote the path of the covered in the graph. Deployed using AWS.
Devanagiri Hindi Alphabet Recognition: Used Keras, Tensorflow and Pandas to achieve an accuracy of 98.15% on test dataset of an image dataset taken from the UCI ML repository.
Project management system: A web based system made using ASP.NET.
Convolutions using MPI C programming: Wrote the convolution algorithm widely used in image and signal processing, and parallelized it using the Message Passing Interface for execution

on multiple nodes. Also wrote the algorithm in CUDA.
COOL - Compiler: Designed a compiler for the language COOL (Classroom Object Oriented Language).

Activities

- Part of the management committee of IECSE, MIT's official CS Club.
- Part of SysAdmin team for TechTatva, MIT's Technical Festival.

Awards and Fellowships

Awarded a certificate by CBSE for perfect score in Board examinations.