Sushmita Delcy Pereira

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EDUCATION

Manipal Institute of Technology, Karnataka **July 2019 - July 2021**
M. Tech in Computer Science and Engineering CGPA:7.44/10

St. Josephs Engineering College, Karnataka **June 2014 – June 2018**
B.E in Computer Science and Engineering 57.41%

St. Agnes Pre University College, Karnataka **June 2012 – March 2014**
Pre-University Examination by Karnataka Board of Pre-University Education 77.16%

St. Agnes Girls High School, Karnataka **June 2009 – April 2012**
S.S.L.C. Examination by Karnataka Secondary Education Examination Board 88.64%

SKILL SET

Programming Languages: HTML, CSS, JavaScript, React Native, C programming language

Skill: WordPress developer

WORK EXPERIENCE

- **IClick Advertising Pvt. Ltd., Javascript Web Developer: Duration: June 2021 to present**

  - Designed and created user friendly websites and improved quality by conversion rate optimization, landing page speed load optimization.
  - Developing pages for sales like black Friday sale for clients like Zager guitars, Wish rock massage chairs, Motopia car rental.
  - Worked closely with programmers and clients to meet project requirements, goals and other desired functionalities.
  - Implemented enhancements which increased responsiveness.
  - Language: Javascript,HTML,CSS

- **Whitehat Jr, JavaScript Instructor: Duration: September 2020 to present**

  - Assist students in the creation and development of applications and animation apps.
  - Application of logical, technical and creativity in a wide variety of game development.
  - Language: Javascript,Framework: React Native
  - React Native framework to create apps.
  - Coding on visual studio code and p5 editor.

TECHNICAL PROJECTS

- **Handwritten Character Recognition using Neural Networks, September 2020-July 2021**

Objective: Study about neural networks and pre-processing of dataset. Training the model to recognise characters.

Implementation:

- Dataset: 1,016 samples for each of the characters and digits.
- Splitting the data into training data, testing data and validation data. Plotting the graph to check the distribution of each character.
- Preprocessing and reshaping of the images and also performing image augmentation in order to achieve better feature extraction during the training process.
- Trained the model, the model used was CNN (Convolutional Neural Network) model.
- Plotted accuracy and loss graphs and achieved an accuracy of above 87% for each character.
- Tested the model and the input for testing was passed through the webcam.
- Software used: PyCharm
- Language used: Python

- **Security Camera 'ULO', September 2017 - April 2018**

Objective: To build a cost effective security system that can be used in all households.

Implementation:

- The project designed and implemented is a security system based on the Raspberry Pi.
- The aspects of the system are: motion detection using a PIR sensor, image capturing using a Pi Camera and sending the image to the user via the telegram app.
- Hardware used: Raspberry Pi, mobile phone, PIR sensors, servo motor, flash light, LDR sensor.
- Software used: VNC viewer and telegram app.
- The security system starts with the command /start and when there is an intruder it detects motion and then triggers the servo motor which rotates to the direction of the intruder, the LDR senses whether its day or night to turn on the flash light which then triggers the camera to capture the image. The image is sent as a notification to the user via the telegram app.

- **3D Car Simulator, March 2017- May 2017**

Objective: Creating a 3D-Car Simulator using OpenGL

Implementation:

- Used GL,GLU and GLUT libraries to create cars with animation and graphics.
- Rotated the car considering its x-axis,y-axis and z-axis.
- Created various scenes and effects such as day or night time, fog effect, toggle effect, wheel effect and car driving mode.

PUBLICATIONS

- **Super Sort Algorithm using MPI and CUDA, August 2020 - Springer, Singapore**

    - First element of the unsorted list is taken as maximum and put in a separate array. Then every element of the unsorted list is compared to the maximum element, if it is maximum then it is appended to the maximum list or else it's ignored. This goes on till the end. This entire process is forward selection.
    - Then in the next process backward selection is performed where the remaining elements of the unsorted list is considered, but in this the last element is considered as the maximum element.
    - Then the lists formed in backward and forward selection are merged by comparing its firsts elements and the minimum is added to the partial sorted list and this goes on until the forward and backward lists are empty.
    - The lists are merged and sorted accordingly to get the final sorted list.Parallel programming has been used to perform sorting and merging functions simultaneously. The observation is that when the input size is small sequential C programming uses less time. But as the input size increases, parallel programming with MPI proves to be better than the sequential counterpart. Also, the increase in time taken with increase in input size is more in the case of sequential.

ACTIVITIES

- Participated in Pre-University level intercollegiate competition 'CHEMISTRY-it's all-around us', in St. Aloysius, 2013
- Participated in 'Science Model Competition' in St. Agnes and secured first place,2011-2012

RELEVANT COURSEWORK

- **Usable Security, June 2019 Coursera**

    - Learned how to design and build secure systems with a human-centric focus. Looked at basic principles of human-computer interaction, and applied these insights to the design of secure systems with the goal of developing security measures that respect human performance and their goals within a system.

PERSONAL DETAILS

- **Date of Birth**: 15 July 1996

DECLARATION

I, Sushmita Delcy Pereira, hereby declare that the information provided is true to the best of my knowledge.

Date: 11 September 2022

Place: Mangalore