Vishal Dung Dung

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EDUCATION

Master of Science in Computer Science

Indiana University Bloomington

Aug 2022 - Expected Dec 2023

Coursework: Computer Graphics | Applied Algorithms | Elements of Artificial Intelligence

Bachelor of Engineering in Computer Science & Engineering | GPA: 3.46/4

Vellore Institute of Technology, Andhra Pradesh, India

2018 - 2022

Coursework: Operating Systems | Mobile Application Development | Computer Organization and Architecture | Data Structures and Application | Soft Computing | Database Management System | Object Oriented Programming | Computer Networks

TECHNICAL SKILLS

Languages:Python, Java, C#, C++Operating Systems:Windows, Linux, AndroidWeb and Framework:HTML5, JavaScript, CSS, XML

Game Engine: Unity

Certifications: Introduction to Cybersecurity (06/2020) - CISCO, Being an effective Team member (09/2022) -

LinkedIn Learning, Node-RED: basics to bots (05/2020) - IBM

RELEVANT PROJECTS

College Connect App | Technologies used : Android Studio, Java, Firebase, XML

- Built an app which connects people of a particular College/University socially and can serve as a platform for everyone to stay connected and informed about notices, guidelines, and even college events.
- Programmed an online media application where we can post graphic information, like and comment on those posts, and follow/unfollow someone we knew, which also served as an alternative to sending old fashioned emails and made information readily available.
- Utilized Android Studio to build the whole project.
- Used Real-time database with the help of Firebase which stored information such as username and passwords which were both secured, information about each and every upload, likes, comments etc.
- Designed the user experience to be as convenient as possible.

Image Processing Techniques | Technologies used: TensorFlow, PyTorch, Google Colab | Data-set used: MNIST data-set

- Analyzed and assessed certain techniques of image processing which can be used to to create artificial images and also improve the quality of certain degraded images.
- Surveyed various previous articles related to image processing and Generative Adversarial Network(GAN) and how they can be used in creating artificial images.
- Gained an understanding of how GAN's can be trained to create multiple artificial images with the help of a data-set of real images using machine learning.
- Built a simple implementation of GAN.
- Implemented PyTorch which provided primitives that permitted us to build our GAN network, including completely connected neural network layers, convolutional layers, etc.
- Used TensorFlow to utilize various tools, libraries and sources to create and develop the project and Tensorboard was used which is a visualization extension of TensorFlow which helped in visualizing each and every step of the GAN training.

Voice controlled Robotic Car | Technologies used: Python, Arduino UNO, Various sensors

- Developed an automated vehicle which could be controlled with voice and can avoid obstacles.
- Used ultrasonic and infrared sensors which helped the vehicle to avoid obstacles.
- Set up a Bluetooth module to connect it with a smartphone app from which the user can speak out the commands which were then transmitted to the vehicle.

Smart Mirror | Technologies used : Raspberry Pi, LCD Display, Two way mirror

- Designed a smart mirror which can be conveniently used as a mirror as well as information provider.
- Used the LCD display to connect it to Raspberry Pi using a HDMI interface.
- Implemented various features like news feed, weather forecast, time, and even Alexa was used in this project and a speaker was added to serve Alexa.