# SIDDHARTH  C T

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## Education

- **National Institute of Technology Karnataka, Surathkal**
  **Major:** Electrical and Electronics Engineering     **Minor:** Information Technology
  **CGPA:** 8.82/10.0     **Expected Graduation:** May 2023

## Experience

- **National Institute of Technology Karnataka, Surathkal – Computer Science Department**
  **Research Intern**                                                        *May 2021 -  August 2021*
  - Implemented Deep Learning Models for Segmentation of Medical Images.
  - U-net Architecture used to improve the accuracy of the model from 75% to 92%.
  - Implemented new Loss Functions to solve class imbalance problem.
  - **Technologies used:** Python, TensorFlow, Keras, Convolutional Neural Networks(CNNs), OpenCV and NumPy.

## Programming languages

- Python
- Java
- C++
- C Programming
- JavaScript
- SQL

## Software Skills

- Data Structures and Algorithms
- Database Management system.
- TensorFlow, Keras
- OpenCV, NumPy
- MATLAB, GNU Octave
- HTML, CSS, JavaScript

## Industry Skills

- Machine Learning/ Deep Learning
- Object Oriented Design
- Full Stack Web development
- UI/ UX design
- Git and GitHub

## Projects

| Project Description | Technologies and Frameworks |
| --- | --- |
| **1. Dr.Programmer :- Web Application to learn computer Science fundamentals** \| Link<br>• Developed a full stack web application for people all over the world to learn and apply computer science fundamentals.<br>• **Features of Web App** – Learn fundamentals, take skill test, solve coding problems, User accounts, Project Ideas, Articles and tutorials for self-learning. | • React Js, Node Js, Express Js, MongoDB database used.<br>• HTML, CSS and JavaScript fundamentals used to develop web app. |
| **2. Image Classification with Machine Learning techniques** \| Link<br>• Image classification implemented for MNIST (handwritten digits) dataset, CIFAR-10 dataset and HAM-10000 dataset.<br>• Convolutional Neural Networks (CNNs) used to train the Deep Learning Models. | • TensorFlow, Keras and Python.<br>• OpenCV, NumPy, Matplotlib and TensorBoard libraries used. |
| **3. Image Segmentation with Deep Learning** \| Link<br>• Image Segmentation implemented on open-source Skin Cancer datasets.<br>• U-net Architecture used to make deep learning models which segment images.<br>• Implemented new Loss Functions to improve the accuracy of the model.<br>• Implemented the designed Deep learning model on a Kaggle dataset during an Open Challenge and increased the accuracy of the model considerably. | • TensorFlow, Keras and Python.<br>• OpenCV, NumPy, Matplotlib and TensorBoard libraries used.<br>• Pooling Layers, Up-Sampling, Batch Normalization and Dropout techniques utilized. |
| **4. RTO Database Management System**<br>• Implemented a MySQL relational database to store Attributes and items of data used by Regional Transport Offices in India.<br>• Features included methods to Add data, retrieve data, modify existing data and maintain the security of the database and keep the database restricted from unauthorized accesses. | • MySQL database system.<br>• Relational databases.<br>• Open-source MySQL data visualization software used. |

## Achievements, Recognitions and Positions of Responsibility

- Executive member of Institution of Engineering and Technology (IET), NITK.
- Completed 4th level **Tabla** exam conducted by Akhil Bharatiya Gandharva Mahavidyalaya.
- All India Rank 9305 in JEE Main examination among 12 lakh students.
- Karnataka CET rank 593 among 1.4 lakh students.
- Received 1st prize in Arduino programming competition conducted by IEEE student chapter.