

# Saiharshith K R

☎ +91-6383552605 @ saiharshithkr@gmail.com in Saiharshith K R @ Personal Portfolio Website

## Education

### UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

MASTERS IN COMPUTER SCIENCE

📅 Grad: Dec 2023 📍 Champaign, IL

### ANNA UNIVERSITY

B.E IN COMPUTER SCIENCE

📅 Grad: May 2021 📍 Chennai, India

Cum. GPA: 9.54/10.0

## Coursework

### UNDERGRADUATE

Object Oriented Programming

Data Structures

Design and Analysis of Algorithms  
DBMS

Operating Systems

Machine Learning

Artificial Intelligence

## Skills

### PROGRAMMING

LANGUAGES:

- Advanced: C++, Python
- Intermediate: C, Java, SQL
- Novice: JavaScript

TOOLS AND FRAMEWORKS:

- Git
- Linux
- Windows
- Spring Boot
- AWS

### OTHERS

- Teaching

## Achievements

### FIRST PRIZE

SRI VENKATESWARA COLLEGE OF  
ENGINEERING

Won first prize in the Inter-Dept  
Coding Competition conducted by  
KNOW-I AI Research club, SVCE.

### MOST FEASIBLE PROJECT AWARD

36-HOUR HACKATHON

Won the Most Feasible Project Award  
for the Disease Predictor project in a  
36-hour hackathon conducted by  
ACM, SVCE.

## Experience

### SOFTWARE ENGINEER | FRESHWORKS

📅 Feb 2020 – April 2022

📍 Chennai, India

BACK-END | JAVA | SPRING BOOT

- Upgraded the build tool (Gradle) used in the product, reducing the build time to 8 minutes from > 13 minutes.
- Reduced the traffic overload by more than 40% by changing the product's monolith background server to multiple layers of microservices.
- Developed deduplication algorithms to ensure appropriate email-deliverability metrics with the help of Redis Cache.

### MACHINE LEARNING INTERN | CADENCE DESIGN SYSTEMS

📅 May 2019 – June 2019

📍 Bengaluru, India

PYTHON

- Classified different Field Programmable Gate Arrays (FPGAs) based on their configurations.
- Developed a classification model that achieved an accuracy of 86.6%, a significant increase from 63% using ensemble learning, and various ML algorithms.

## Projects

### THE DISEASE PREDICTOR

PYTHON | JAVA

- Built an android application that predicts different types of external diseases on Eye, Skin, Mouth and Nails with an image input using Convolutional Neural Networks. We created the dataset from scratch by web scraping.
- Link to the Github Repository

### EMOJI GENERATION FROM HUMAN EXPRESSION

PYTHON

- Built an Emoji Generation System where the user's facial expression will be identified first and then the identified expression will be used to generate the appropriate emoji.

## Publications

### APPLICATION OF RANDOM FORESTS FOR AIR QUALITY ESTIMATION IN INDIA BY ADOPTING TERRAIN FEATURES

PUBLISHER: INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS  
(IEEE)

📅 Sep 2020

📍 Chennai, India

- Built a Regression model which predicts the Air Quality Index (AQI) of any Indian city using it's terrain features with an accuracy of 88%.
- Link to the Research Paper

## Specializations

### DEEP LEARNING SPECIALIZATION

DEEPLARNING.AI, COURSERA

Link to the certificate

### PYTHON FOR EVERYBODY SPECIALIZATION

UNIVERSITY OF MICHIGAN, COURSERA

Link to the certificate