Swathi Asokraj

swathiasok.github.io/Portfolio

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Education

SSN College of Engineering **August 2018 - June 2022**
BTech in Information Technology, CGPA : 9.11 *Chennai, India*
First Class with Distinction

St. Patrick Matric Hr. Sec. School, Puducherry **August 2016 - May 2018**
Grade XII – 96.58% *Puducherry, India*

Achariya Bala Siksha Mandir, Puducherry **July 2014 - April 2016**
Grade X – 10 CGPA *Puducherry, India*

Experience

Workato **July 2022 – November 2023**
Software Development Engineer *Bangalore, India*

- Devised and deployed a tool aimed at simplifying the process of executing change requests from customers. This tool empowers employees to leverage the UI for modifications, eliminating the need for direct interaction with the back end.
- Designed and implemented new Ruby scripts to facilitate the automation of operations across various applications within the product development team.
- Incorporated scripts using Python and explored ways to visualize and send a weekly report summarizing customer issues to the executive team.

Optum Global **June 2021 – August 2021**
Software Development Intern *Bangalore, India*

- Constructed a Kafka API program in Java, utilizing SpringBoot, to capture real-time streaming data. Additionally, implemented file handling functionalities within the program to process the incoming data and store it in the database.
- Deployed the application on Kubernetes and collaborated with the global team to assess the advantages of transitioning from Openshift to Kubernetes.

Academic Projects

Mutli Facial Recognition for Partial Faces | *Python, Keras, Tensorflow, Jupyter Notebook* **August 2021**

- Systematically curated a comprehensive dataset by sourcing images from individuals, employing proper image pre-processing techniques, and meticulously refined the dataset.
- Applied a face detection model, RetinaFace, to identify individual faces within the training set.
- Designed a CNN classifier model entirely using Keras and Tensorflow. This involved creating the architecture, defining layers, and fine-tuning parameters to attain the desired image recognition capabilities specifically tailored for identifying non-holistic faces.
- Evaluated the output against other pre-built models, and selected the most optimal model for the classification and recognition of individual faces within the test images.

Computer vision-based smart selfie | *Python, OpenCV, Google Colab* **October 2020**

- Developed a simple emotion detection model using the pre-trained classifiers in OpenCV to identify individual faces in both static images and live feed.
- Extended the algorithm to automatically capture the facial image upon detecting a smile.

Blog site using EJS | *Node, Express, MongoDB, VS Code* **August 2020**

- Designed a responsive food blog equipped with fundamental functionalities, allowing users to interact with and manage content seamlessly.
- Deployed the application successfully on Heroku, ensuring widespread accessibility and availability.

Automated Traffic Control System for Ambulance using IOT | *Arduino* **March 2020**

- Developed an automatic traffic control system using Arduino and RF module to enable the transmission and reception of signals to and from the microcontroller.
- Utilized the Arduino IDE to script the program, which takes input from the transmitted signals, enabling the automated switching of signal lights.

Technical Skills

Languages: Python, C/C++, Java, Ruby, HTML/CSS, JavaScript, SQL
Database: Database SQL, MongoDB
AI Techniques: Machine Learning, Deep Learning and Computer Vision
Developer Tools: VS Code, Android Studio
Cloud Technologies: Docker, Apache Kafka, Kubernetes

Certifications

- *'Automation Pro - I, II, III'* | Workato | 2022
- *'Web Design for Everybody: Basics of Web Development and Coding'* | Coursera | 2020
- *'Machine Learning A-Z™: Hands-On Python and R in Data Science'* | Udemy | 2020
- *'Deep Learning A-Z™: Hands-On Artificial Neural Networks'* | Udemy | 2020
- *'Deep Learning and Computer Vision A-Z™: OpenCV, SSD, and GANs'* | Udemy | 2020

Workshops

- Internet of Things 2-day workshop conducted by Lema Labs
- Artificial Intelligence with Machine Learning 2-day conducted workshop by WAC

Achievements / Extracurricular

- Participated in the 24th State Level Children's Congress (Science Forum) - 2016 and won a cash prize
- Completed the 80-hour training conducted by the National Sports Organization (NSO) as part of the Personality and Character Development program of the university
- Selected as the 3rd Best Student for the 42nd Batch CTC Training Program conducted by the Police Department of Puducherry

Positions of Responsibility

- Holding the position of Class Representative for 4 consecutive years and worked to implement better communication between students and the department management
- Member of the department's organizing committee of the inter-college technical symposium 'Invente'