stenzr
rkrohitkr01
+91-7782930504
rkrohitkr01@gmail.com

ROHIT KUMAR

EDUCATION

***Integrated Masters of Science in* Mathematics and Computing**
--2016-2021
Birla Institute of Technology,
Mesra
CGPA : 8.33

SKILLS

- **Languages and tools:** Python
- **Database:** SQL, MongoDB
- **Machine Learning:** sklearn, Computer Vision- YOLO, Detctron2
- **Deep Learning:** Tensorflow
- **API Development:** Flask, Django
- **Container:** Docker
- **Deployment:** Heroku, AWS EC2

ACHIEVEMENTS

- Secured **69**/251 position in data science hackathon during **Cascade cup** 1st Edition.
- Secured a position in **top 4** software teams in Internal Hackathon for **Smart India Hackathon** 2020 ***(Recommended for finals)***.

WORK EXPERIENCE

(i) Analyst at Deloitte USI *(Sept 2021 - Present)*

- Developed OData **Rest APIs** for Interfaces in SAP ERP.
- Developed Reports with selection screen and **backend CRUD** operations on standard tables to automate the tasks of SAP functional consultants, **reducing** human **effort by approx 50%.**
- **Technologies: SQL, SAP ABAP, SAP Gateway**

(ii) Machine Learning Intern at Tensor Matics (Labellerr) *(Jan 2021 - Jul 2021)*

- Implemented end to end **computer vision** retail use case solutions to add auto annotation functionality to auto label feature on the tool.
- Automated the data gathering process using **scrappers reducing** the **ETA** of project **by 70%,** trained computer vision models using frameworks as **YOLO**, **Detectron2**, scripted **model APIs** and **containerized** them using **Docker** and deployed them on **Amazon EC2** instances **reducing** the Labelling time **by 60%**.
- **Technologies: Python, JavaScript, Flask, Node.Js, Express.Js, Amazon EC2, Docker, Labellerr annotation tool, OpenCV, Tensorflow, Pytorch**

PROJECTS

(i) Bacteria Detection with Darkfield Microscopy(freelance project)

- Implemented **U-Net architecture** with attention mechanism to perform **image segmentation** of bacterial images with highly satisfying outputs verified by domain expert.
- Handled the dataset using the technique of **data augmentation**. While model training the **back propogation** utilised custom made **loss function**.
- **Tech Stack:Tensorflow2, UNet, Computer Vision, Python**

(ii) Early Sepsis Detector

- This project was made during SIH 2020 and was recommended for finals.
- Implemented **ensemble based classifier** models on the highly **imbalanced** physiological dataset.
- Deployed the trained model as **Rest API** using **Flask** on **Heroku** to be consumed by an Android frontend.
- Developed an interactive dashboard to visualize patient vitals.
- **Tech Stack: sklearn, Tensorflow2, XgBoost, imblearn, Flask, Heroku, streamlit**

(iii) Indoor Navigation for Retail Store

- An **Api** for searching, listing and navigation to the aisles for a given list of products in a retail store.
- **Webscraped** the store website to create a **sqlite** database of products
- Developed a **REST API** in **Flask** to: Search for the location details of the product, provide the list of products to get the respective aisle numbers
- **Tech Stack:** ***Python, urllib, BeautifulSoup, SQLITE, Flask, Heroku***

PUBLICATIONS

- **Heart rate variability features from nonlinear cardiac dynamics in identification of diabetes using artificial neural network and support vector machine.**
  Journal: Biocybernetics and Biomedical Engineering
- **Heart rate variability time domain features in automated prediction of diabetes in rat.**
  Journal: Physical and Engineering Sciences in Medicine