

HARSH WALIA

Indian Institute of Information Technology and Management, Gwalior

✉ harsh.p.walia@gmail.com

☎ +91 9761423844

in [linkedin.com/in/harsh-walia-32b968172/](https://www.linkedin.com/in/harsh-walia-32b968172/)

🔗 github.com/harshwalia36

EXPERIENCE

GOOGLE INDIA | SDE intern

📅 Jan 2023 – July 2023

📍 Bangalore

- Design and Built a **Multiple document summarization** Engine from different Viewpoints by Fine-tuning different LLMs under **Google Search Team**.
- Improved **metrics by 2 percent** and reduced the **loss of information** in existing Methods.
- Created a **Demo [Frontend + Backend]** for Multi-Doc Summarization Engine that take user's **Google Search query** and generate summary for **Top 5 Url's**.
- **Tech stack:** C++, Python and Worked with **ML, DL and LLM's**.

SAMSUNG (SRI-B) | SDE intern

📅 May 2022 – July 2022

📍 Remote

- Optimized The **Tiling Algorithm**(Convert **RAW10** packed image into **UNPACKED** data).
- Reduce the **Memory Requirement** of the algorithm from **216MB** ->**6MB** and **Time Complexity** by **20%**.
- **Tech stack:** C++, Neon Programming.

INTERVIEW BIT (Scaler) | Data Science intern

📅 Dec 2021 – April 2022

📍 Remote

- Developed **comprehensive and advanced content** for the Scaler Data Science **Computer Vision Module**, for the learners at Scaler Academy.
- Solved **Industry Relevant End-to-End Business Use Cases** in **NLP & CV** to provide a Solution around the Datasets Used by different companies.
- **Tech stack:** Python, Keras, tensorflow, Flask, pandas numpy.

PROJECTS

EARLY PREDICTION OF MORTALITY RISK AMONG COVID-19 PATIENTS | Btech Thesis project

🔗 [Github-Repo](#)

- Implemented an **Ensemble of ML Models** to Predict the Risk of Mortality in Early Stages in Covid-19 patients with a **AUC of 0.89** on the test dataset.
- Identified the Top Best Features among 85 features of the Covid Patients in the Dataset using **Seven different Features Selection algorithms**.
- Implemented **17** different models including **Classical ML Models, Tree Based & Different Ensemble Models** and Finally a Voting Classifier to Ensemble all the Top models.
- Published a [Research Paper](#) in IEEE.

AUDIO DESCRIPTION OF IMAGE FOR VISUALLY IMPAIRED PERSON | Btech Mini Project

🔗 [Github-Repo](#)

- A Deep Learning Model that generates the textual Description of an image and convert the description into Audio for Blind Person.
- V1). of the project uses **CNN-RNN Model Architecture** to predict the caption of images which achieved a **LOSS of 2.689** on Flickr 8K dataset.
- V2). Implemented **CNN-RNN Architecture with Attention Mechanism** to achieve **better accuracy** on a Larger MSCOCO Dataset which achieved a **LOSS of 1.625**.

SEGMENTATION AND CLASSIFICATION OF COVID-19 FROM LUNGS 3D CT-SCAN | Deep-Learning Project

🔗 [Github-Repo](#)

- **AIM-** To identify the Person as Covid or Non-Covid and to segment the infection from the patient's **3D Ct-Scan**.
- Segmented Infection Mask and Lungs Mask from given Ct-Scan using the **UNET Model Architecture** and achieved a **Dice Score of 0.87 and 0.97** for Infection and Lungs Segmentation respectively.
- Classified a person as a **Covid or Non-Covid** using a CNN architecture with a **F1 Score of 0.97**.

EDUCATION

Integrated BTech + Mtech , Information Technology | **IIIT Gwalior**

📅 2018 – 2023

📍 Gwalior

- **CGPA: 8.01/10**

Gyankalash International School

📅 2015 – 2017

📍 Saharanpur

- 12th : Percentage **87%**
- 10th : **CGPA 9.2/10**

SKILLS

PROGRAMMING SKILLS

- **Expertise-** C, C++, Python, SQL.
- **Familiarity-** JavaScript, Node.js, React.js, Flask, HTML, CSS, MongoDB, .

FRAMEWORKS/LIBRARIES

- Keras, TensorFlow, PyTorch, Sklearn, AWS, MLFlow, W&B, Numpy, Pandas, Matplotlib, Streamlit.

DOMAIN KNOWLEDGE

- Machine Learning , Deep Learning , NLP, Computer Vision, MLOps, Web Development

Others

- Git/Github, Heroku, Latex, Linux, openCV.

COURSEWORK

- Data Structures & Algorithms, DBMS, OOPS, ML, AI, Prob Stats, OS and CN.

MOOCs & CERTIFICATIONS

- **Machine Learning** by Coursera (AndrewNG).
- **Deep Learning Specialization** by Coursera .
- **NLP Specialization** by DeepLearning.ai
- **Python Bootcamp:** From Zero To Hero

ACHIEVEMENTS

- Kaggle **3X Expert**. [[Kaggle Profile](#)]
- Semi-Finalist in **Flipkart Grid 4.0**. Among **Top 1K Teams** out of **1.5Lakh Teams**.
- Secured **Global Rank 196/5K** participants in codechef **September MEGA COOKOFF**
- Secured **Global Rank 357/20k+** participants in codechef september challenge 2020.
- **Golden Badge:** CPP, SQL and **Silver Badge:** Python on HackerRank.[[Profile](#)]
- Qualified for **Facebook HackerCup'20** Round 2.
- Secured **Global Rank 679/13K+** participants in codechef December challenge 2019.

LINKS

- Github: [harshwalia36](#)
- Leetcode: [harshwalia](#) (600+ solved).
- Geeks For Geeks: [harsh_walia](#) (200+ solved).