

Ayushi Bhakuni

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SKILLS

- **Languages:** C++, Python,
- **Web Development:** HTML and CSS
- **Frameworks & Tools:** YOLO, MATLAB, OpenCV, MySQL, Stream lit, Google Earth Engine, Machine Learning
- **Tools & Platforms:** Jetson Nano
- **Soft Skills:** Team work, Adaptability, Quick learner
- **Course Work:** Datawarehouse And Mining, Artificial Intelligence.

INTERNSHIP

Defense Research and Development Organization

July 2023 – August 2023

Thermal Image Processing Intern

- **About:** Developed an object detection system using YOLO models and deployed it on Jetson Nano hardware.
- Generated XML annotations and trained models using MATLAB for thermal image datasets.
- Utilized Python and OpenCV libraries to enhance detection accuracy.
- Gained exposure to embedded systems and real-time inference.
- **Tech stacks used:** MATLAB, Yolo Models, VS code IDE

Teach Beam Institute and Consultancy Service

March 2022 - May 2022

Web development Intern

- **About:** Built a college management system with HTML/CSS frontend and PHP backend.
- Improved website navigation and user interface for better usability.
- Learned basic client-server communication and database connectivity.
- **Tech stacks used:** HTML, CSS.

PROJECTS

- **Plant Disease Detection System:** June 2024
Developed plant disease detection system to assess plant health.
Designed the system to identify various plant diseases across different plant types and provide the corresponding disease names.
Trained the model using a comprehensive dataset containing multiple plant species.
Utilized a labeled dataset with 20+ plant diseases to train the model.
Created a user-friendly web app using Stream lit for interactive disease identification.
Tech: Python, machine learning, CNN, stream lit.
- **Image Processing and Face Detection In LWIR:** August 2023
Developed a face detection system and conducted image processing in the LWIR waveband.
Automated XML dataset annotation and trained classifiers in MATLAB.
Constructed a custom dataset to train the face detection model and implemented the model on Jetson Nano hardware.
Acquired proficiency in python libraries essential for developing and implementing the face detection.
Improved processing efficiency by optimizing image preprocessing pipelines.
Tech: MATLAB, python, Jetson Nano hardware, image processing, MATLAB.
- **Rainfall Analysis Website:** May 2023
Analyzed precipitation trends using the CHIRPS Pentad dataset via Google Earth Engine.
Developed custom shapefiles for state-level analysis in Uttarakhand and Karnataka.
Conducted historical trend analysis and district-wise rainfall deviation assessments.
Examined rainfall data in terms of long-term mean, monthly rainfall deviation, seasonal variation and district-wise deviations.
Acquired the knowledge of function used for programming in Google Earth Engine.
Tech: Google Earth Engine dataset, Google Earth Engine Code Editor.

CERTIFICATES

- Completed training on JAVA by CETPA INFOTECH PRIVATE LIMITED September 2020

ACHIEVEMENTS

- **Ranked one among Dean top 10 students in Diploma:**
For good academic performance and extra-curricular activities in diploma.

EDUCATION

Lovely Professional University

Master of Technology - Computer Science and Engineering; **CGPA: 8.79**

Punjab, India

Since August 2024

Uttarakhand Technical University

Bachelor of Technology – Computer Science and Technology **Percentage: 76.20**

Dehradun, Uttarakhand

August 2021 – June 2024

Uttarakhand Board of Technical Education

Dehradun, Uttarakhand

