

Kumkum Gupta | IIT BHUBANESHWAR '24

Rajasthan | +91-8094155802 | 03kumkumgupta@gmail.com | @linkedin | @github | @leetcode

EDUCATION

Indian Institute Of Technology Bhubaneshwar
MJ children sr. sec. School, Jhalawar

BTECH in Civil Engineering | GPA : 8.24
12th , RBSE | Percnetage : 89.20

Nov 2020 – May 2024
July 2019 – July 2020

TECHNICAL SKILLS

Languages : Python, C/C++, SQL (MySQL), JavaScript, HTML, CSS

Frameworks/Library : Tensorflow, Keras, Pytorch, Flask, Node.js, ExpressJS, React.JS, numpy, pandas, scikit-learn

Subject/Core : Data structures and Algorithm, Deep learning (CNN), OOPS(C++), Operating system, DBMS, Exploratory data analysis, Statistics

Others : Power BI, OCI(familiar), Azure(familiar), GenAI(Introductory), Debugging ,Jupyter Notebook, Microsoft Excel, Powerpoint, Windows, Google Collab

EXPERIENCE

Analyst – Data Science | Tiger Analytics

Oct 2024 – Present

- Led Mega CPG Client's transition to an AI-powered factory camera system for real-time object detection on conveyor belts
- Implemented **Mask R-CNN** integrated with **spectral data and metadata**, reducing processing time by **40%** in manufacturing workflows.
- Conducted in-depth **EDA on spectral datasets**, helps improving defect detection and significantly reducing waste-related costs.

Deep learning Research Intern | IIT Bhubaneshwar

May 2023 – July 2023

- Executed a deep learning model for automation in manual inspection tasks which reduces inspection time by upto **40%**
- Synthetically generated dataset of Tokaido Railway JAPAN is used for semantic segmentation
- Implemented a **CNN based model** UNET architecture to detect various types of damages in concrete (Semantic Segmentation).
- Optimized **U-net** architecture by integrating **inception + ASPP** modules .
- UNET+ASPP+INCEPTION model resulted in **Mean IOU 0.31** and **precision 99.44%** and **recall 98.92%**

PROJECTS

Doc Appointment | MERN STACK

Oct 2023

- **Feature:**Created an online registration system allowing users to secure appointments with available doctors, resulting in a 40% reduction in appointment booking time.
- **User side:** Created search bar for checking available doctors, request and delete engine for appointment, Apply portal for doctor position
- **Doctor side:** receive notifications, accept or delete the request, change and update their profile

HOSTEL-NEXUS | NodeJS,MongoDB,ExpressJS,EJS,HTML5,CSS3

Oct 2023

- **Features:**A device that organizes everything for a **hosteler** in a single place.
- **Admin side-** To monitor polls, view complaints & keep a record of student's hostel and mess attendance
- **User side-** Students get easy access to hostel notices, polls for mess-menu, managing laundry details, filing complaints, etc.

Structural Crack detection | Deep Learning, Semantic Segmentation, Generative Adversarial Network, Tensorflow

Apr 2024

- Optimized with **UNET3++** architecture, to detect hairline cracks on surfaces using Image Segmentation , Worked on Tokaido dataset
- UNET3+ model resulted in **IOU 0.47**, to further improving results, Generative adversarial network architecture is implemented
- Proposed **U3GAN** where generator is UNET3+ and discriminator is inspired by pix2pix CGAN Model and it improved segmentation results by **19%**

ACHIEVEMENTS

- **Top 2%** in LeetCode Biweekly Contest 109
- Solved **400+** problems on Leetcode
- **AIR 596** in JLR Gearshift Code Rally 2023.
- Performed **Excellent** in BTECH(4th yr) Deep learning based Project in Civil Branch.
- Completed course on Introduction to Deep Learning on Coursera.
- Completed course on **OCI generative AI 2024.**

POSITION OF RESPONSIBILITY

- **Core Head** Of Publicity Team in Alma Fiesta 2024 : led team and performed strategic marketing and collaboration
- **Student Guide** in Counselling Service Team 2023, IIT BBSR : Provided guidance to new students, showcased organizational, communication, mentorship
- Core Member of Civil Engineering Forum 2023, IIT Bhubaneshwar