KRISHNA KANT DUBEY

ACADEMIC PROFILE

Degree/Certificate	Institution	Percentage/CGPA	Year
B-Tech	Electrical Engineering IIT (BHU), Varanasi	7.95	2021
CBSE (XII)	Green View Public School	89.60	2016
CBSE (X)	Green View Public School	95.00	2014

SKILLS

Languages

C++, C, Python, HTML

Frameworks & Technologies Used

Django, Jupyter Notebook, GitHub

Areas of Interest

Data Structures, Algorithms, Machine Learning, Web Application Development(Basic), Operating System, Object Oriented Programming, Competitive Programming

INTERNSHIP/TRAINING

Training and Deploying AI Models for Lesion Segmentation April 2020 - June 2020

Summer Internship under Research Team, Philips India Ltd, Bangalore

- Analyzed various deep learning techniques for effective lesion segmentation of Brain MRI.
- Explored FasterSeg Network for improving state-of-the-art models available for lesion segmentation.
- Implemented a **U-Net model** for lesion segmentation on medical image dataset.
  Exposure: *Deep Learning, Medical Image Pre-processing, Fractals*

PROJECTS

Movie Recommendation System using Collaborative Filtering May 2019 - July 2019

Summer Project Under Dr. Vinayak Srivastava, Computer Science and Engineering, IIT (BHU) Varanasi

- The task was to build a **collaborative movie recommendation system** that focuses on the ratings given by the users to provide a recommendation.
- Used K-NN to analyse the similarity and correlation between items to build this system, employing both user-based and item-based collaborative filtering techniques.
- Analysed the MovieLens dataset consisting of 100004 ratings by 671 users across 9125 to gain insight into the movie dataset that could help in developing our system.
  Exposure *KNN Algorithm, Scikit-learn, Basics of Machine Learning, Python*

Robust One-Class SVM with Rescaled Hinge Loss Function January 2020 - Ongoing

B.Tech Project Under Dr. Debdas Ghosh, Mathematical Sciences, IIT (BHU) Varanasi

- A novel robust **one-class support vector machine** based on the rescaled hinge loss function is proposed to enhance the robustness of the conventional OCSVM against outliers.
- Half-quadratic optimization strategy based alternating optimization method is utilized to solve the optimization problem of the proposed robust OCSVM.
- Generalization ability and robustness of robust OCSVM are analyzed from the theoretical viewpoint.
  Exposure: *OCSVM, Numerical Optimization, Machine Learning*

Real Time Object Detection Using TensorFlow January 2019 - May 2019

Exploratory Project Under Dr. Sandip Ghosh, Department of Electrical Engineering

- The task was to implement a working model for detecting real-world object instances and humans in still images or Videos.
- Model was trained on *COCO* dataset and mapping of the objects is done using *ultrasonic sensor* controlled by Raspberry Pi.
- Deployed a *Text-to-Speech API* to give aid to visually impaired people for movement.
  Exposure: *TensorFlow, Image Processing*

POSITION OF RESPONSIBILITY

- **Training and Placement Cell Representative** of 2021 batch of Electrical Engineering at IIT BHU.
- **Content Head** of Technex'20, the Annual Techno-Management Fest of IIT BHU, managed a team of 10+ members to provide quality content.
- **Content Head** of Spardha'19, the Annual Sports Fest of IIT BHU, managed a team of 10+ members for content creation and modification.
- **Marketing Manager** of Technex'20, the Annual Techno-Management Fest of IIT BHU, managed a team of 30+ members to raise sponsorships and regulate advertising campaigns.

HONOURS AND ACHIEVEMENTS

- Secured All India Rank 2916 in JEE Advanced 2017.
- Awarded with Certificate of Merit by CBSE for meritorious performance in class 10th.
- Third position in Inter-IIT street play competition and was part of IIT (BHU), Varanasi contingent which won the Overall Dramatics Winner trophy at the Inter - IIT Cultural Meet 2018.
- Winner at Street Play event in Anwesha’ 19, Annual Cultural Fest of IIT Patna.
- Winner at Hullad – Street Play event in Kashiyatra’ 19, Annual Socio-Cultural Fest of IIT (BHU) Varanasi.

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