

Aditya Bhat

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SUMMARY

AI/ML engineer with specialisation in Deep Learning and Computer vision. Skilled in python, tensorflow, deep learning models (Yolov5, resnet50, R-CNN), classification, detection, tracking, segmentation.

EDUCATION

Rutgers University

Master's In Computer Science

New Jersey, USA

2021-2023

BMS Institute of Technology:

Bachelor's In Information Science

Bangalore, India

2013-2017

WORK EXPERIENCE

Thinking Stack

AI/ML Engineer

Bangalore, India

Oct 20-Jun21

- Developed over 5 custom YOLOv5 models for detection of safety PPE kit by manually annotating over 5000 images and training with up to 4 augmentation techniques and different model hyper parameters.
- Led a team of 2 in development of 'SEER' module which served as complete package for object detection problem (using YOLOv5), from collection of data to evaluating final model, which reduced the overall model development time by 50%.
- Created a POC of activity detection using 'posenet' module using a LSTM network which took body key points of 30 frames as input to predict the activity. Training data generated using Unity3d by animating a human character.
- Devised 3 analytical solution for 'Decathlon' - age and gender detection, classifying people under 'Employee' or 'Not employee'. Built a simple GUI using tkinter python package for classifying raw data manually.

DHS Informatics

Machine Learning Intern

Bangalore, India

Feb 20-Jul 20

- Developed a reverse image search— Content based image retrieval used a dataset of over 2000 images, extracted colour histogram as Image descriptors. Histogram comparison of query and dataset images determines the similarity.
- Collaborated with vision team and worked on segmentation, eye tracking using contours, face recognition models using algorithms such as LBPH, face recognition using dlib.
- Coached undergraduate students in final year machine learning projects, created documentation and reports for the same with student strength of 30.

Oracle Financial Service Software

Technical Analyst

Bangalore, India

Jun 18-Mar19

- Guided and validated MOS automation and installation of Behaviour detection package to the clients which generates alerts and cases based on scenario rules set by the bank.
- Resolved service requests from over 20 banking clients across the globe, namely 'Bank of America', 'HSBC', 'Standard chartered', 'Lakshmi Vilas Bank', ABC Corporation, CITI Bank.
- Managed bugs reported by customers and followed up with the development and Product Management Team, conducted meetings, managed client calls, fixed product bugs, and ensured customer satisfaction by quick responses and solution.

PROJECTS

Virtual Gym Instructor

- Google's mediapipe (pose detection) module returns wrist, elbow and shoulders key points to calculate the angle and ensure the user has indeed performed the exercise.

Drowsy detection system

- Coded a module using dlib library which extracts facial points including eyes. Euclidean distance between the top and bottom points of the eye calculated determines the status of the driver.

Violence detection system

- Trained violence detection model using posnet which tracks body key points in raw input violence footage. Trained LSTM network on the same by passing 30 frames at a time. Evaluated the output on similar basis. [All Projects](#).

SKILLS

Language: Python, C++, SQL.

Frameworks: Tensorflow, Keras, OpenCV, Numpy, sklearn, PIL.

Models: YOLOv5, Resnet50, UNET.

Editors: Google Colab, Jupyter Notebook, Visual Studio, Unity 3d.

INTERESTS

Augmented Reality (AR Core, Vuforia), Game development in Unity3D