Shubham Jain

Deep Learning Engineer

Shubham Jain
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Education

Maulana Azad National Institute of Technology, Bhopal | Master of Technology in Digital Communications
July 2014 - June 2016, Bhopal

Finished M.tech in Digital Communication with thesis on Computer Vision | CGPA : 8.38

University Institute of Technology, RGPV, Bhopal / Bachelor of Engineering in Electronics and Communication
July 2010 - June 2014, Bhopal

Finished B.E in Electronics and Communication Engineering | CGPA: 6.8

Skills

Areas : Deep Learning, Computer Vision

Languages : Python, C++, C, Matlab

DL Frameworks : Caffe, Tensorflow, Darknet, PyTorch

Tools/frameworks : Docker, Zmq

Experience

Uncanny Vision Solutions Pvt Ltd (Startup incorporated in 2013)
Deep Learning Engineer | Dec 2017 - Present, Bangalore

Retail Surveillance (Dec 2017 - Nov 2018)

- Responsible for converting monolithic application into microservice based architecture.
- Responsible for system integration and delivery of dockerized application.
- Provided support to customer for required dependencies and end APIs.
- Created distributed computing architecture for application with multiple dnn models.
- Compiled application for embedded environment (Nvidia Jetson Tx2).
- Trained CNN based person detection model.
- Tools: Python, ZMQ, Cython, Docker, Docker swarm, docker-machine
- Role : Developer

Capgemini Technology Services India Limited / Global Engineering Services (GES)
Senior Analyst | July 2016 - Dec 2017, Bangalore

Virtual Reality Application for Advanced Technical Assistance Training | (Sept '17 - Dec '17)

- Developed VR app on Microsoft HoloLens to provide training to technical assistants .
- Domain : Aerospace
- Tools : C#, Unity 3D , Microsoft HoloLens
- Role : Developer

POC on Object Classification (ADAS) | (Aug '17 - Sept '17)

- Developed APIs for Multiple Object Detection and Classification using TensorFlow.
- Used for reverse search of frames for objects.
- Tools : TensorFlow, Python, Flask
- Role : Developer

Resource Tracker Tool (Internal Project) | (July '17 - Aug '17)

- Web Application for automating resource tracking process.
- Toos : Python, Flask, HTML, CSS, JavaScript
- Role: Developer

Boon Edam Connector Dashboard | (Oct '16 -May '17)

- Dashboard Interface to manage several doors (say 150).
- Managing doors involves viewing the door lists, checking their status, capturing images using stereo-vision cameras, motor drive control, snoozing doors, global parameter setting, etc.
- Responsibilities :
  - Writing Test Cases for all the features of Dashboard.
  - Creating database for different scenarios.
  - Performing tests and updating Test cases for new feature requests
  - Create Summary Reports for the tests Performed and Procedures
- Role : Tester
- Tools : NodeJs, Selenium, MySQL

Training | (July '16 - Oct '16)

- UI Development on Qt Creator, C++
- SDLC, STLC, Agile

Academic Projects

Unauthorized Vehicle Detection in Dedicated Lanes: | (Aug '15 - April '16)

- Detects and classifies the moving object as Bus/Truck/Car/Two Wheeler/Pedestrian in the dedicated lanes for BRTS vehicles.
- Video captured from a stationary camera (day time).
- Implemented on MATLAB (using Computer Vision Toolbox).

IR based Wireless Switch for AC devices | (Oct '15 - Feb '16)

- A two port device which can instantly convert any AC appliance/switch into IR Remote controlled.
- Aim of this project was to develop a cost effective solution for modern needs which also reduces the waste of old appliances and gives convenience of future devices.

Internet of Things based security system | (Dec '14 - Feb '15)

- Raspberry pi based security system connected with multiplexed magnetic sensors.

- Notifies the user in case of intrusion through SMS, e-mail, Facebook post or tweet.
- Also activates the connected DVR/video camera and streams the video on the Internet.
- Reduces internet bandwidth requirement and power consumption by only streaming important events.

Nearby Vehicle Positioning System using V2V communication | (Aug '13 - Feb '14)

- Driver assistance system to locate nearby vehicles in blind turns/fog etc.
- Vehicle to vehicle communication through ZigBee protocol.
- Uses GPS to locate its own position and broadcast the location to other vehicles.
- Displays relative location of nearby vehicles on a LCD installed in the car.
- Implemented and tested on 2 cars.

Other Mini projects :
Line follower Robot | Automatic Overhead tank filling system | Quiz Buzzer System | FM Transmitters

Academic Trainings

Embedded Systems and PCB Designing from StarBru Technologies | (Aug '12)

- Design and implementation of basic embedded systems Worked on technologies like Zigbee, GPS, Bluetooth, RF, IR, etc. Single Layer PCB designing basics.

Communication System in Indian Railways | (June '13)

- Studied the existing communication system of Indian Railways. Also studied Passenger Information system, which includes IVRS, Auto Announcement System, Coach Guidance System, and Master-Slave Clock.

Awards

- Feb 2016, won First Prize in Bhopal Vigyan Mela-2016 (organised by MPCST) for making "Wireless Switch"
- Feb 2015, won Second Prize in Savishkar-2015, held at MANIT, for making "Internet of Things based Security System".
- Scored 99.2%ile in GATE 2014, ECE stream (total students: 216367)
- Mar 2013, participated in technical paper presentation competition (Topic: Preventing rural migration by employment generation) held under PEHAL 2013 at State Museum, Bhopal.
- Oct 2012, Won 1st prize in CIRCUITOUS (circuit designing competition) in Technosearch 2012, held at MANIT.
- Jan 2012, Quarter Finalists in Wild soccer (Robo Soccer, made 4 wireless robots) and Gearloose (Air Powered vehicle design competition)in Techkriti 2012 at IIT Kanpur