Abhishek Aggarwal

Software Developer – Data Analyst - Blogger

I am an enthusiastic, responsible and hardworking IT professional. Having worked for different projects has helped me to adapt to the changes quickly and made me a mature team worker who can work under pressure and adhere to strict deadlines.

🎂 15th September 1997 (23, Male)

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EXPERIENCE

July 2019 - PRESENT

Tata Consultancy Services, Noida — *Systems Engineer*

As a system engineer in TCS, I had worked on different domains including **Satellite Image Processing**, **Deep Learning**, **Computer Vision** etc. I was also responsible for working closely with the UI team and developing a platform for General Surveillance which includes **Face detection & Recognition, Person Tracking and liveness detection.**

July 2018 - September 2018

Netcamp Solutions, Ghaziabad — *Internship*

During the internship, I was trained in **Web Development, Android App Development and Networking Concepts** and henceforth given projects to be completed within deadline.

Tools Used: VMware, Redhat Linux, Cisco Packet Tracer, Android Studio, Wamp Server.

PUBLICATIONS

5th June 2020 – 7th June 2020

Comparative Assessment of Different Deep Learning Models for Aircraft Detection

2020 International Conference for Emerging Technology (INCET)

Headed a research on the comparative study of three models – (**YOLOv3, SSD and RCNN**) for small scale **object detection like aircraft on satellite images** and presented it to **IEEE Bangalore in INCET 2020 conference.**

SKILLS

Operating System: Linux, Windows

Data Structures (C++, JAVA)

Version Control Git

Python (NumPy, Pandas, Matplotlib, PyTorch, Keras, Scikit-learn, Flask, Jupyter Notebook)

Tools (Anaconda Framework, VSCode, Android Studio, Vim)

Machine Learning, Data Analysis

Computer Vision, Face Recognition, Object Detection

Docker, ElasticSearch, Kibana

AWARDS & CERTIFICATIONS

Deep Learning Specialization by Andrew Ng: Completed various courses on Deep learning in this specialization on Coursera ranging from Simple neural networks to CNN and Sequence Models.

Awarded with a title of CodeStar during Farewell at Raj Kumar Goel Institute of Technology in May, 2019.

Yellow coder on Codechef: Acquired a global rank of 130 among more than 11000 participants in codechef during September 2018.

TCS Codevita: 28th Rank in TCS codevita coding platform in August 2018

PROJECTS

September 2020 – December 2020

Semantic Search - Intelligent Site Analysis

- As a part of **Decision Fabric Platform** in TCS, I was responsible for developing a **Semantic Search Engine** in close collaboration with a **Life Science's Customer**.

- The project aims at providing user-friendly **search capabilities** on the customer's enterprise data with **intelligent site analysis** with the help of Decision Fabric Analytical components.

- Various other tools like **ElasticSearch, Kibana, Docker etc.** were leveraged to develop and deploy the application in the production environment.

June 2020 – August 2020

Intelligent Face Detection & Recognition System along with Liveness Check

- Face detection using **OpenCV** and then using **Dlib** to get facial features embedding vectors.

- Using that embedding vector to recognize the person in a video live stream.

- Detecting various features like **eye blinking and head movement** in order to check **liveness** of a person in live camera footage.

February 2020 – June 2020

Video Analytics for Personal Safety during Pandemic Times

- As a part of the Decision Fabric Platform Team in TCS, I worked closely to build a live **intelligent video analytics platform to detect different people and track their inter zone movements** across office premises.

- Then I also worked to leverage this solution in order to detect **whether a person in a live CCTV video stream is following safety standards by wearing a mask** and maintaining social distancing among other employees as well.

September 2019 – December 2019

Small scale Aircraft Detection in Satellite Images

- The main aim of this project was to **detect various aircraft in satellite images** and give the count of all aircraft present in a particular location (airport) at a particular time.

- For this Deep learning task, **MobileNet SSD** model was used to achieve **94% accuracy.**

EDUCATION

June 2015 – June 2019

Bachelor of Technology in Computer Science & Engineering

Raj Kumar Goel Institute of Technology, Ghaziabad
Percentage: 71.7 %

April 2014 – April 2015

STANDARD XII / H.S.C. C.B.S.E. - Computer Science Major

Dayawati Modi Public School, Modinagar
Percentage: 89.4 %

April 2012 – April 2013

SSC C.B.S.E.

Chhaya Public School, Modinagar
CGPA: 9.2

LANGUAGES

Hindi, English

STRENGTHS

Team Player, Quick learner, Flexibility, Adaptability, Goal oriented

HOBBIES

Gaming, Sports, Hackathons, Competitive Programming, Reading Books, Travelling, Listening Music