Pankaj Pundir
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Area of Interest

Computer Vision, Deep Learning, Artificial intelligence, Data Science, Data Structures and Algorithms

Educational Qualification

National Institute of Technology (NIT), Uttarakhand, India **07/2019-present**
Bachelor of Technology, Computer Science & Engineering (6th Sem.) ***8.69 CGPA***

Network Security	Data Structures & Programming
Algorithms	Operating Systems
Data Science	Computer Vision and Image processing
Artificial intelligence	Neuro Fuzzy technique

Central Board of Secondary Education, New Delhi **04/2014-03/2015**
Vivekanada School, Jogiwala, Dehradun
Senior Secondary School, ***91.6%***

Central Board of Secondary Education, New Delhi **04/2012-03/2013**
Vivekanada School, Jogiwala, Dehradun
Secondary School, ***10 CGPA***

Technical Skills

Languages	C++, Python
Database Systems	MySQL
Environmental Packages	pandas, seaborn, Matplotlib, Kivy
Web Development	JavaScript, jQuery, CSS, HTML, PHP
Computer Vision	OpenCV
Deep Learning	PyTorch, Keras

Current Project - Ongoing

- **Hand Gesture Detection and System Control**
  Technologies: Python, OpenCV

  * This project is designed for identifying hand gestures to control computer. This will eliminate the need of mouse for basic tasks.

- **Synchronous Traffic Control**
  Technologies: Python, OpenCV, Reinforcement Learning

  Synopsis: The designed system schedules the traffic in an efficient manner with known future inputs. This method Is very much promising for heavy traffic countries and give more security as advance features like **accident detection** is implemented. Routing traffic and providing **Green Corridor** in emergency condition.

Projects

- **POCONET - Pothole detection using YOLOv2**
  Technologies: Python, OpenCV

  Synopsis: The project is used to automate the detection of pothole using Deep-learning approach (YOLOv2). This collected data of coordinates were then uploaded to the server, which can be accessed by the citizen and government officials.

- **Malaria Detection - Deep learning**
  Technologies: Python, OpenCV

  Synopsis: The project is used to automate the **malaria detecting process** by providing the image of red blood cells of the patient. It is an intensively manual process which is being automated with deep learning.

- **Instant Attendance**
  Technologies: PHP, CSS, JavaScript

  Synopsis: The project is designed for reducing the time taken during attendance in college/ school. Online platform is created to mark attendance with two available options.
  - Normal mode: Teacher will speak the roll number and mark attendance on the go.
  - Instant mode: Teacher will create a code which allow students to mark attendance in real time as code is shared with students via private medium.

  This reduces the attendance time to 20 seconds or less. Can be implemented within local network and online.

- **Fig Sense: Fully automated Graph Reader**
  Technologies: *Python, OpenCV*

  Synopsis: This project is designed for extraction of information from chart images. Currently the software is made to classify and extract bar and line images. The software tackles the problem under the field of document analysis and data extraction.

Work Experience

- **Summer Intern, IIT Ropar**. Rupnagar, Punjab
  - **Duration**: May. 2018 – Jul. 2018 (2 Months)
  - The internship deals with product development using **Computer Vision and Machine Learning.** Derived a method for **Data Extraction and classification of line and bar charts.** The Accuracy of the model and technique derived was promising.

- **Summer Intern, IIT Ropar**. Rupnagar, Punjab
  - **Duration**: May. 2019 – Jul. 2019 (2 Months)
  - The internship deals was the extension of previous internship, as it deals with making the approach more robust using Deep learning and Machine learning.
    - Charts classification
    - Structure analysis and Textual data extraction.

Extracurricular

- Technical Coordinator (CSE) 2017-2018
- Coordinator (CSE) Cliffesto 2018
- Event Head (PRODYOGEEKY TECH MEET 2017 NITUK) 2017
- Coordinator Kodesk Club NITUK 2017-2018
- Joint Secretary of Kodesk Club NITUK 2018-2019
- Codathon Ambassador (online coding competition MNIT Bhopal) 2018
- InterviewBit Ambassador (Nationwide event **codersBit)** 2019

Personal Information

D.O.B	20/01/1998
Marital Status	Single
Language Known	English, Hindi

Date: 5/08/2019 **Candidate: Pankaj Pundir**

#References would be provided on request.