

Pradyumn Patil

Portfolio: pradyumn.herokuapp.com
Github: github.com/Pradyumn-Patil
Linkden: Linkden.com/pradyumn-patil

Email: pradyumn.narendra.patil@gmail.com

Mobile: +91-816-9360-053

EDUCATION

- Vishwakarma Institute Of Technology** Maharashtra, India
Bachelor of Technology - Computer Science; CGPA: 8.53 - as of 2nd year* July 2019 - ongoing

RELEVANT COURSEWORK

- Data Structure
- Artificial Intelligence
- Machine learning
- Computer architecture and operating system
- Data Communication and Networking
- Data Science

SKILLS SUMMARY

- **Programming Languages:** Python, C++, Core JAVA
- **Frameworks:** React, Tensorflow, Apache
- **Technologies:** Docker, GIT, Kubernetes,
- **Operating System:** Windows, Linux, macOS
- **Soft Skills:** Project Leadership, Technical Operations, Mentoring

ACADEMIC PROJECTS

- Video Content Classification Using Deep learning - Nvidia Sponsored Project** August 2021 - ongoing
Research Oriented project which classifies the input Video according to the content type
 - **Key-frame Extraction:** By identifying the informative region of each frame and significantly improve video classification accuracy..
 - **Combination of Neural Networks:** Combining convolutions neural networks(CNN's) and recurrent neural networks(RNNs) for a spacio-temporal model and create a system that accurately classifies the input Video with up-to 80.27 % model accuracy (currently) .
 - **Evaluation:** confusion matrices are produced for performance analysis and check accuracy also provide class-wise prediction for input apart from testing data set.
- Automatic Number plate recognition In High Speed and Heavy Traffic** August 2021 - November 2021
Accurately detect the characters on license plate present in unfavorable conditions
 - **Object Detection and Pre-processing:** HSV conversion, Grey Scale extraction and Grey scale extraction was done for further processing and localization and tracking of multiple vehicle
 - **detection:** Application of Contours and extract Region of interest i.e. License number plate
 - **Recognition:** KNN model was used to perform Optical Character Recognition and fill in the missing character using Predictive analysis .

PERSONAL PROJECTS

- Document Verification using OCR and Fuzzy string matching:** Verification tool to check for invalid submission of scanned copy of Paper based Document by performing pre-processing tasks and accurate Optical Character Recognition. Fuzzy string matching done on resulting characters in a robust system that would scan all the user submitted data for such inconsistencies. **Tech:** Python, Pytesseract. (September 2021)
Quotation is sent to State Government aiming to aid them in processing 30k documents
- Banking software for Co-Operative Elderly homes:** created a basic banking software in JAVA swing. Elderly people as user base in mind. Data was Managed using MySQL. Had all the necessary features such as set-up new account, send and receive payment, Loan Request, Admin Control. **Tech:** Java, Swing, SQL (January 2021)

RESEARCH EXPERIENCE

- Research Paper: Video Content Classification using Deep Learning (OpenCV, Deep Learning, Neural Networks):** 'Work in Progress' A model that is a combines of CNN and RNN based LSTM and can identify the type of video content and classify them into categories. Key-frame extraction method is included to reducing the overall processing time
Target Journal:- Springer - Neural Computing and Applications (Preprint on arXiv)

HONORS AND AWARDS

- **"High Achiever" in AISSE** Mumbai, India
*Presented with a **GOLD** medal from College for Achieving perfect **10 CGPA** .* Aug 2017
- **Certificate Of Merit from Central Board of Secondary Education** Mumbai, India
Granted for outstanding performance and obtaining 'A1' grade in all subjects. May 2017

VOLUNTEER EXPERIENCE

- **Operations Team at Computer Society of India** Pune, India
Conducted online and offline technical events for 150 members present in the club. Jan 2021 - Present
- **Volunteer at 'Voting rights' Awareness event "Matadhikar"** Pune, India
Organized events to spread voting rights awareness to over 1000 people. May 2021

EXTRA-CURRICULAR ACTIVITIES

- **"National Level Football player "** Goa, India
represented my City and Secured Runner up position in football tournament Dec 2015
- **Enacted in Advertisement for a "Reality Dance show"** Mumbai, India
May 2013