

Chetan Madan

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Education

Bharati Vidyapeeth's College of Engineering, Guru Gobind Singh Indraprastha University

B.TECH., COMPUTER SCIENCE AND ENGINEERING

New Delhi

2017 - 2021

Experience

Eckovation

SUBJECT MATTER EXPERT - MACHINE LEARNING

- Worked to help develop Unnayan system for smart education and classrooms
- Built an autonomous OMR sheet evaluation system without dedicated hardware

New Delhi

June 2019 - August 2019

Projects

Few Shot Accent Sensitive Voice Cloning using Generative Decoder

PERSONAL

January 2020 - Present

- Extracted embeddings corresponding to four human speech features: speaker voice features, speaker accent, emotions and context of speech using different encoder networks from mel-spectrogram of voiced audio samples
- Used VCTK, TIMIT and CMU Arctic datasets to train different encoders
- Used embeddings from the four encoders to generate mel-spectrogram corresponding to cloned voice using a generative decoder.
- Used triplet loss to train the generative decoder.

Do It Right

PERSONAL

November 2018 - February 2019

- Feedback system to detect if a user is performing an exercise properly.
- Detected keypoints on a user's body and calculated relative slopes.
- Compared relative slopes to calculate correctness of user's posture.
- Provided real-time feedback on mistakes in performance of any exercise.

Mountain Hike

PERSONAL

November 2018 - Present

- Driving assistant that gives a driver accurate picture of other cars in a radius of 200 metres
- Used the concept of indoor localization to vehicles
- Used deep neural network to suggest appropriate reaction based on surroundings of the vehicle

Attendance System using Face Recognition

PERSONAL

September 2018 - December 2018

- Implemented using Face Detection in OpenCV
- Marked the entry and exit times for every member

Drone Surveillance System

PERSONAL

August 2018 - September 2018

- Developed a system to monitor autonomous drones in real time in a region using CNN
- Aimed towards providing safety against malicious use of UAVs

Extracurricular Activities

Microsoft

MICROSOFT STUDENT PARTNER

September 2019 - Present

- Gained experience about new tools and frameworks for machine learning, robotics and electronics
- Held regular meetups with students to discuss and share knowledge on emerging technologies

Developer Student Clubs by Google Developers (DSC BVP)

HEAD, MACHINE LEARNING

May 2019 - Present

- Promoted technical education by taking workshops and sessions on machine learning.
- Held research discussions with students to discuss latest relevant research

Skills

Programming Python, C/C++, MATLAB, Java, Embedded C

Deep learning PyTorch, Tensorflow, Keras, Caffe

Robotics Embedded Systems, Atmel AVR, Arduino, Raspberry Pi

Honors & Awards

2020 **Winner**, India Automation Games by **International Society of Automation (ISA) - District 14** and MPSTME
Qualified for **ISA-SAIT Automation Games, Canada**

Mumbai

2020 **Invitee**, Microsoft **Asia Student Partner Summit 2020** and **Imagine Cup Regional Finals**, Singapore

Singapore

2019 **Winner**, Vihaan Hackathon by **IEEE, DTU**

Delhi

2018-2019 **Semi Finalist**, IICDC by **Department of Science & Technology** and Texas Instruments

2018 **Winner**, UHack 3.0 Hackathon in USICT, Delhi

Delhi