Chetan Madan

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Education

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

B.Tech., Computer Science and Engineering   *2017 - 2021*

GPA: 8.2/10

Experience

Aiotize   *New Delhi*

Data Science Intern   *May 2020 - Present*

- Worked on an automated port management system
- Used video analytics for analysis and surveillance of containers entering and exiting a port
- Monitored the intactness of seals on containers present in the port, along with their health and the container number.

Eckovation   *New Delhi*

Subject Matter Expert - Machine Learning   *June 2019 - August 2019*

- Developed the Unnayan system for smart education and classrooms
- Built an autonomous OMR sheet evaluation system without dedicated hardware

Projects

CodeFed

Personal   *January 2021 - present*

- Built a privacy preserving Code-Switching detection system
- Capable of detecting frane level code switching between English, Tamil, Telugu and Gujarati with 78% accuracy.

Few Shot Accent Sensitive Voice Cloning using Generative Decoder

Personal   *January 2020 - July 2020*

- Extracted embeddings corresponding to four human speech feature using different encoder networks from mel-spectrogram of voiced audio samples
- Used VCTK, TIMIT and CMU Arctic datasets to train multiple encoders
- Used embeddings from the 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 a 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

Volunteer Experience

OpenMined

Mentor   *December 2020 - Present*

- Mentored students of the Private AI Course.
- Gained deeper knowledge of PySyft and PyGrid and their use in federated learning.

Microsoft

Microsoft Learn Student Ambassador   *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 - May 2020*

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

Skills

| **Programming** | Python, C, C++, Java, R, Embedded C |
| **Deep learning** | PyTorch, PySyft, Tensorflow, Keras, Scikit-learn, Caffe |

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, India*
2020	**Invitee**, Microsoft **Asia Student Partner Summit** 2020 and **Imagine Cup Regional Finals**, Singapore	*Singapore*
2019	**Winner**, Vihaan Hackathon by **IEEE, DTU**	*Delhi, India*
2018-2019	**Semi Finalist**, IICDC by **Department of Science & Technology** and Texas Instruments	
2018	**Winner**, UHack 3.0 Hackathon in USICT, Delhi	*Delhi, India*