Pranav Natekar

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EDUCATION

VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY
BE in Electronics and Telecommunication
May 2019 | Pune, India
Cum. GPA: 6.99 / 10.0

LINKS

Github:// **pranav6670**
LinkedIn:// **pranavNatekar**
Medium:// **@pranavnatekar**
Twitter:// **@pranavnat24**

COURSEWORK

UNDERGRADUATE

Signals and Systems
Data Structures and Algorithms
Object Oriented Programming
System Programming
Operating Systems
Digital Signal Processing + Practicum
Digital Image Processing + Practicum
Artificial Intelligence
Machine Learning + Practicum
(Delivered a lecture at a workshop titled "ML with Python")
Fundamentals of Deep Learning for Computer Vision(Nvidia's DLI)

COMPETENCIES

PROGRAMMING

• Python • C • C++
• Embedded C • MATLAB
Familiar:
• Swift(iOS) • Kotlin(Android)
Tools:
• LaTeX• Git • MySQL

HARDWARE

Experienced with:
• Arduino • Raspberry Pi
• RF(Wi-Fi, Bluetooth, LoRa, nRF24)

PROJECTS

AUTOMATIC DETECTION AND CLASSIFICATION OF TABLA TAALAS FROM INDIAN CLASSICAL MUSIC | Aug 2018 – June 2019

(TensorFlow Community Spotlight Winner)
• Developed a system that would be able to first detect a tabla taala from a mix(a song) of an Indian Classical Music and then classify the taala.
• For separation, **HPSS** (Harmonic Percussive Source Separation) was used and the separated Percussive component was used for classification.
• Models like **CNN**, **LSTM** were trained on a self-made dataset. A **GUI** was made to record a mix, separate and then classify the taala in **real-time**!

AUTONOMOUS VEHICLE DRIVE | Sept 2017 – June 2018

• Designed a vehicle from scratch and driven autonomously using an **MLP**.
• The car was driven wirelessly through the keyboard using nRF24 RF modules. The on-board camera live-streamed footage directly to the laptop via **sockets**. The camera would save the snap for a corresponding key-stroke, and this formed the training data.
• Alongside autonomous driving, the car would identify STOP signs and traffic signals using **Haar cascade**.

IMAGE AUGMENTER | Oct 2019 – Dec 2019

• A **GUI** designed in **PyQT5** for image augmentation leading to **1000+** images, when a single image is fed. The augmentations included affine transforms, morphological operations, convolving various filters, edge detection, etc.

EXTRA/CO-CURRICULAR

Type	Description
Technical	Led the communication team for **Robocon**'18 and team-member since 2017.
Cultural	Played **Tabla** at the musical team for **Firodiya Karandak** 2016.
Blogging	Various blogs written for Analytics Vidya, Towards Data Science.

Participated in **Hactoberfest'19**, which got me started with Open-Source.

AWARDS

Year	Event name, position	Fest name, College
2018	Witrified, 1st	MindSpark'18, College of Engineering, Pune
2018	MicroApps, 3rd	MindSpark'18, College of Engineering, Pune
2018	Impedance, 2nd	Solutions'18, Army Institute of Technology, Pune
2018	Circuit Eye, 2nd	Melange'18, Vishwakarma Institute of Technology, Pune
2017	Circuit Fixer 2, 3rd	MindSpark'17, College of Engineering, Pune
2016	Won 2nd place at intercollegiate variety show(Firodiya Karandak) at state level.	