

# DEEPAK KHATRI

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EDUCATION			
B.E. BIOTECHNOLOGY	2016-20	NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY	6.8 CGPA
CBSE(CLASS XII)	2016	MSD SANJEEVANI PUBLIC SCHOOL, DELHI	80%
CBSE(CLASS X)	2014	MSD SANJEEVANI PUBLIC SCHOOL, DELHI	8.2 CGPA

SKILLS
<ul style="list-style-type: none"><li>• <b>Languages:</b> C, C++, Python.</li><li>• <b>Tools:</b> Linux, KiCAD, Blender, Gimp, Inkscape.</li></ul>

## INTERNSHIPS AND WORKSHOPS

### Maintenance Engineer, Livguard, Himachal (6 week internship, June 2019 - August 2019)

Livguard : company making Inverter, Batteries, Stabilizers, Solar chargers and more.

- Process maintenance (temp, voltage, etc) and quality check of Batteries. Maintenance of proper variable input for balanced charging of batteries and dispatch of products.

### Embedded Electronics, CEDT - NSUT, Delhi (6 week internship, May 2017 - July 2017)

CEDT - NSUT : Center for Embedded Design and Technology Lab maintained by Prof DV Gadre.

- Learned about embedded electronics, embedded linux, design methods and various CLI tools. Designed a portable environmental data logger called "[Mausam National](#)" which also fetch/publish data from server.

## PROFESSIONAL RECOGNITION AND ACHIEVEMENTS

- **Intel® Edge AI Scholarship 2019**, Nano degree from udacity on Computer Vision Model optimization using openVINO.
- **Quarter finalist in IICDC 2017**, built an [EEG headset](#) from discrete components and demonstrated controlling of an LED using Brain waves. Implemented FFT based brain waves filter and used BETA frequency waves for controlling the LED.
- **Electronics Maker '17 Award**, Presented "A Low cost Bio Potential Amplifier". You can sample EMG, ECG, EEG and EOG using the device, it is also available for purchase on my tindie store - [BioAmp v1](#).

## PROJECTS

- Handbrush paint program: virtual paint program that uses tensorflow object detection api trained to give bounding box for hands and the central point of the tracked hand then used as paint brush tip.
- [BacteriAi](#) : Machine learning project, currently in development stage. Using Semantic segmentation models for gram stain classification and masking of individual Bacteria.
- [Ojo \(Eyes for the Blind\)](#) : Developed Machine learning based OCR incorporated image2text2speech model for blinds using gTTS, OpenCV and tesseract python package.
- [Mausam National](#) : A portable device which logs pollution data like CO<sub>2</sub>, CO and other gases using heated filament MQ sensors and it can also fetch real time pollution data from websites through wifi, using webscraping.
- [Electronics Projects](#) : electronic sparrow, CCFL driver, Proximity sensor etc. available to see on my youtube channel.

## POSITIONS OF RESPONSIBILITY

- **Electronics Hardware Engineer of Solar Car Society (2016-17)** - An official society of NSUT.
  - Designed an all in one data Acquisition, logging and Transmission system, Cockpit design and wiring of the other parts of the car. Testing of solar charger for efficient charging using MPPT and mechanical stability testing.

## EXTRA -CURRICULAR ACTIVITIES AND ACHIEVEMENTS

- VFX and professional grade video production using open-source software like GIMP, Blender, Kdenlive etc.
- Diving into new technologies like Python, Linux, Networking, Electronic etc.