

TARUN MAHAJAN

<https://mahajantarun.github.io>

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EDUCATION

Gujarat Technological University

B.E. in Computer Science & Engineering

· CGPA: **7.8/10**

· Participated in various events by **GTU Innovation Council & CIC3**.

Aug 2014 - June 2018

Ahmedabad, India

WORK EXPERIENCE

Geeky Bee AI PVT LTD

Software Developer (Machine Learning)

- Developed computer vision-based **exercise classification and counting** software.
- Developed **vehicle licence plate detection** using smartphone camera. It includes licence plate localization, image pre-processing, OCR, and symbol recognition in real time.
- A **SnapChat like application** by implementing facial landmark detection using Google's Mobile Vision APIs.
- **Exercise classification and counting** using Pose Estimation, both on desktop and mobile devices.
- Developed **multiple object detection & localization** models and optimized it for best performance on mobile devices. Architecture used: Mobilenet SSD
- **Human Activity Classification** using accelerometer and gyroscope readings in realtime. Converted the readings into IMU units and created a 3D volumetric representation.

July 2018 - Present

Ahmedabad, India

Techno Samarthyam

Software Developer (Machine Learning)

- Developed an Android app for detecting and localizing human body points using **Pose Estimation** technique. I used Deep Learning model for Pose Estimation. I used Tensorflow APIs to create Mobilenet V2 - CPM model and used Tensorflow Lite to run on Android devices.
- Realtime body **pose correction** and **audio guidance** system using this application.

April 2018 – July 2018

Ahmedabad, India

HUPP Technologies

Jr. JavaScript Developer (IT, Full Stack)

- Developed various web and mobile applications using technologies like JavaScript, Angular 4, Node JS, Ionic, Firebase and more, for clients across the globe.

May 2017 – Nov 2017

Ahmedabad, India

SKILLS

Programming Languages: *Java, Javascript, C++, Python*

Web Frameworks: *Angular_JS, Angular_io (2,4), NodeJS*

Libraries: *TensorFlow, Keras, PyTorch, OpenCV, NumPy, Matplotlib, Sci-kit Learn, NLTK*

Mobile technologies: *Android, Ionic, React Native*

Cloud: *Firebase and AWS*

SELECTED PROJECTS

Deep Learning Specialization (Coursera, deeplearning.ai) Feb 2018-July 2019
Completed online specialization course on Coursera by Andrew Ng.

Machine Learning (Certification by Stanford Online) Sep 2018-Jan 2019
Completed Machine Learning course with Stanford by Andrew Ng.

3D Printer cum Robotic Arm Dec 2017-July 2018
Implemented and studied 3D printing and mechanics of Robotic arm. Created 3D Slicing, Visualizing and Rendering software. Manufactured Robotic arm using Autodesk Fusion 360. Used RepRap opensource hardware for 3D printers

SMART HOUSE: Automating house using IoT Dec 2016-April 2017
Using technologies like Arduino, NodeMCU-ESP8266, and Raspberry Pi 2, we connected home electric board and few appliance to our computer and executed a list of task using touch as well as audio command. Also I integrated it with mobile application to provide realtime data for analysis.

3D application / Rubik's Cube game April 2016-Nov 2016
Developed an android application using JavaFX to create a 3D view to render Rubik's cube. It also performed similar function of real Rubik's cube like changing patterns. It later formed a complete game on mobile device.

IR robot: Line following robot Feb 2015
Created a small line following robot using Arduino. It can follow black lines on white background, even under dark environment.

Others

The list of my mini-projects includes camera mouse using hand detection, inventory management web application, Face recognition using FACENET (Python), Image Segmentation (Tensorflow), and many machine learning models trained on various datasets for exploration purposes.

I had also participated in CodeVita by TCS, an online coding competition. We were a group of three.

I won TOPPER of TOPs in JAVA technologies at TOPs Inc.