

Abhishek Soni

EDUCATION

2014-2018 B.Tech in Electronics and Communication Engineering, Jamia Millia Islamia

→ **9.37** CPI

2014 (AISSCE) 12th CBSE, GBN Senior Secondary School

→ Score: **90.2%**

→ Physics, Chemistry and Maths combined average: **94.67%**

2012 (AISSE) 10th CBSE, GBN Senior Secondary School

→ Score: **10** CGPA

TECHNICAL SKILLS

A. Programming Languages → Java, JavaScript, Python, C/C++,

B. Electronics → VHDL, PSpice, Assembly Language for 8085, and 8051, Shell Scripting

C. Others → Git & GitHub, HTML, CSS, MATLAB, gulp.js, mocha, LaTeX

D. Frameworks/Libraries → React.js, node.js, scikit-learn, OpenCV, Dlib, Firebase

PROJECTS

codespell: Record the time spent implementing ideas in your favorite programming language

code-snipper: Export source code as PNG image

LexerJS: A lexer and common shared sequence finder (between source code files)

loopyXO: A Tic-Tac-Toe game with a timer and an infinite loop (and an intelligent opponent!)

machine-learning-with-js: Machine Learning with JavaScript. Fast and Simple.

GRE Flashcards: React Native App for learning new words. (Developed for Oxford API Competition, 2017)

FastReader: An android app with speed-reading capabilities

whatsapp-chat-analysis: Text analysis with phrase-frequency plotting and lots more!

Blanket Coffee: An open source blogging platform

term-stats: Check npm download stats in your terminal

blackout-poetry-maker: Create blackout poetry by dragging over the words you want to keep.

recognizeOperators: Machine Learning project to recognize binary operators from images

shell-scripts: Collection of shell scripts to perform boring tasks

sortingJS: Different sorting algorithms implemented in JavaScript

naive-emotions: Emotion detector using face alignment and maths (In progress)

FINAL YEAR PROJECT (B. Tech Major Project)

Title: Automated Attendance System using Raspberry Pi (and your Smartphone!)

Authors: **Soni, A.** & Fakhre Alam, A.

Supervisor: Dr. M. Nizamuddin (mnizamuddin1@jmi.ac.in)

PresentMam: Android apps for Instructors and Students for the Automated Attendance System

1. Developed the Android apps, in Java.
2. Designed and implemented Protocol between apps and Raspberry Pi, in Java and Python.
3. Performed thorough Testing, generated Screenshots, and documented results, in the Final Thesis.

RaspberryPi (Server): Server for Automated Attendance System

1. Designed the processing pipeline for incoming images.
2. Responsible for generation of dataset containing students' faces.
3. Implemented Outlier Detection, in Python.

(Source Code Restricted)

PUBLICATIONS

A. Research Publications

1. **Soni, A.**, Fakhre Alam, A., Nizamuddin, M. *, “**Automated Attendance System using Raspberry Pi, OpenCV and Dlib.**” International Conference on Pattern Recognition and Techniques, *Ambedkar Institute of Advanced Communication Technologies & Research, New Delhi, India, 2017*
(Accepted & Presented)

* *Supervisor*

B. Online Technical Publications

1. Machine Learning in JavaScript (Series) — <https://goo.gl/tFXKDf>
2. Introducing gpu.js — <https://goo.gl/9Tu7rQ>

SEMINARS / PRESENTATIONS

1. **Home Automation using Internet of Things (IoT)**, *Jamia Millia Islamia, New Delhi, India, 2017*
2. **Automated Attendance System (Minor Project):** Implemented an automated facial recognition system using Raspberry Pi, Pi Camera, OpenCV and Dlib.

MOOCs (Massive Open Online Courses)

- Compilers ([Stanford](#))
- **CS229** Machine Learning by Professor Andrew Ng ([Coursera](#))
- Software Development Process ([Udacity](#))
- Compilers: Theory and Practice ([Udacity](#))
- Developing Android Apps ([Udacity](#))
- JavaScript Promises ([Udacity](#))
- Github & Collaboration ([Udacity](#))

OPEN-SOURCE SOFTWARE

1. [brain.js](#)
 - Ported the feed-forward Neural Network to use gpu.js
2. [gpu.js](#)
 - Wrote the documentation and usage guidelines for the library
 - Responsible for tests and bug tracking