



Hursh

Roll No.:170103029

B.Tech - Mechanical Engineering

Minor in Electronics and Electrical Engineering

Indian Institute of Technology Guwahati

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Guwahati	8.17 (Current)	2017-Present
Senior Secondary	Jamia Millia Islamia Board	85.6%	2016
Secondary	CBSE Board	9.0	2014

EXPERIENCE

- Samsung Research Institute** May 2020 - Jun. 2020
Summer Internship Noida, India
 - Developed a Deep Learning Model for **Detection of Distracting objects** from images by training on a large scale dataset.
 - Conceptualized and built a Firebase web app for training data generation and Successfully integrated image **in-painting** model to edit and correct defects in the image.

PROJECTS

- Fault diagnosis of Centrifugal Pumps using Deep Learning** Ongoing
Dr Rajiv Tiwari, Professor, Dept. of Mechanical Engineering, IIT Guwahati
 - Employing **Deep Learning** techniques for detecting and classifying the different kinds of faults occurring in centrifugal pumps.
 - The proposed algorithm may be employed for condition based monitoring in industrial equipments reducing human engagement in real time fault detection and decision making.
- Codeforces Crawler** Nov. 2019 - Dec. 2019
Personal Project git.io/JUuqS
 - Developed a **Django** powered web app to analyze and visualize user's performance on Codeforces.
 - Improved website performance by minimizing redundant **HTTP requests** to Codeforces API which was achieved by pushing web scraped data onto the database using **beautiful soup**.
- Sudoku Solver** Jul. 2020 - Aug. 2020
Personal Project git.io/JUuqH
 - Trained Digit Recognizer with Keras and Tensorflow using MNIST Dataset by implementing a **CNN** to identify the digits present in the sudoku puzzle.
 - Extracted sudoku puzzle from the image using a collection of Image Processing techniques from OpenCV library and finally implemented the **backtracking algorithm** for solving the sudoku.
- Crunch Spot** Jul. 2019 - Sep. 2019
Personal Project git.io/JUEGh
 - Built a **NodeJS** Blog Reading web app that implements **RESTful routing** using Express framework where users can add, update and delete their blogs after signing up.
 - Used PassportJS as the authentication middleware and mongoose for MongoDB object modelling.

TECHNICAL SKILLS

- Programming Languages:** C++, Python, Javascript
- Web Technologies:** Django, NodeJS, Flask, HTML
- Database Management:** SQL
- Miscellaneous:** Git, Firebase*, TensorFlow*
- Operating Systems:** Windows, Linux*

* Elementary proficiency

KEY COURSES TAKEN

- Computer Science:** Data Structure & Algorithms', Operating System', Databases', Introduction to Computing
- Machine Learning:** Introduction to Machine Learning', Deep Learning and Neural Networks'
- Mathematics:** Advanced Calculus, Ordinary & Partial Differential Equations 'MOOCs

ACHIEVEMENTS

- Competitive programming**, Achieved highest Rating of **1675(Expert)** on Codeforces (Handle: masaow) and **1816** on Leetcode(Handle: hurshs0609).
- Google Hash Code(2020)**, Secured Global Rank of **1327** amongst 10724 participating teams.
- JEE Advanced(2017)**, Secured All India Rank in the top **3%** among 0.2 million candidates appearing for the test.

EXTRACURRICULARS

- Cleared **Google Code Jam** Qualification Round 2019 and 2020.
- Secured **2nd** Position in Kho-Kho in **Spardha**, the Inter-Hostel Sports Competition, IIT Guwahati.
- Participated in **Footloose**, the Inter-Hostel Dance Competition, IIT Guwahati.