Hursh

Roll Number: 170103029
B.Tech -Mechanical Engineering
Minor in Electronics and Communication 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	Central Board of Secondary Education	9.00	2014

Experience

- **Summer Intern at Samsung Research Institute, Noida**   *May 2020 - Jun 2020*
  - 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 **inpainting** 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*
  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*
  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.

- **CruchSpot**   *Jul. 2019 - Sep. 2019*
  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 system :** Windows, Linux*   ** Elementary proficiency*

Relevant Courses

- Data Structures and Algorithms'
- Deep learning and Neural Networks'
- Operating Systems'
- Introduction to computing(Theory and Lab)
- Machine Learning'
- Databases'
- 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.
- **Joint Entrance Examination 2017(Advanced):** 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.