### Mehdi Hossain

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#### **Professional Summary**

Passionate aspirant and 4th year B. Tech student in the field of Computer Science and Technology with intuitive problem-solving skills. Looking to start a career as Software Engineer with a reputed firm driven by technology.

#### Academics

| Qualification | Institute                              | Board / University | Year    | % / CGPA                  |
|---------------|--|--------------------|---------|---------------------------|
| B. Tech (CSE) | St. Thomas' College of Engineering and | MAKAUT             | 2018-22 | 9.42 CGPA (Till           |
|               | Technology, Kolkata                    |                    |         | 6 <sup>th</sup> Semester) |
| XII           | Birla Bharati, Kolkata                 | CBSE               | 2018    | 88.2%                     |
| Χ             | Birla Bharati, Kolkata                 | CBSE               | 2016    | 9.8 CGPA                  |

#### Internships

# Nomura Research Institute Financial Technology • Working as a student Intern in Nomura Research Institute Financial Technology. Integrated Test Range, DRDO April '21 – May '21

- Explored existing Object Detection and Tracking techniques for Unmanned Aerial Vehicles tracking.
- **Designed** a motion-model to predict the movement of the object of interest in future time-stamp.
- Designed a Particle Filter for object tracking and compared it with Kalman and Bayesian Filter.
- Designed the necessary interface for Object Detector model to integrate particle filter and motion-model for Real-Time Drone Detection and Tracking.

#### **Projects**

Zooskersky Python

- Developed front-end UI for software that gathered information from over 100+ websites from the surface net regarding wildlife trafficking.
- Analysed the data collected to form graphs showing the rise and fall of demand of various poached animal parts.
- **Using** the data to build an application where the user can search for a keyword in English as well in vernacular language to present the current demand and active sites selling the poached animal part.
- Achieved the position of Winner of ZooHackathon 2019.
- Use Case of the application activists looking for a one-stop platform for tracking illegal trading of animal parts.

#### Sign Language Live Predict Python

- **Developed** an application to aid people with hearing imparity. This application converts American Sign Language to normal text (along with speech) and vice-versa.
- The software had a front-end (designed using the PyQT framework) along with supporting features of Google API for text-to-speech along with speech recognition features.
- A Hand-Gesture Recognition Model was used to convert American Sign Language to English text, per frame.
- Recognition as one of the top 10 Finalist of ACM India East Hackathon.

#### **Achievements & Certificates**

| <ul> <li>Top Finalist of ACM India-East Hackathon organized by Association of Computing Machinery</li> </ul> | February, 2020  |
|--|-----------------|
| <ul> <li>Winner of ZooHackathon 2019, Regional organized by World Wide Fund, India</li> </ul>                | November, 2019  |
| <ul> <li>Mathematics for Machine Learning: Multivariate Calculus, Linear Algebra (Coursera)</li> </ul>       | September, 2020 |
| <ul> <li>Deep Learning Specialization (Andrew NG), by deeplearning.ai (Coursera)</li> </ul>                  | August, 2020    |
| <ul> <li>The Joy of Computing using Python (NPTEL course)</li> </ul>   | April, 2020     |
| <ul> <li>An Introduction to Programming Through C++ (NPTEL course)</li> </ul>                                | April, 2020     |
| Problem solving through Programming in C (NPTEL course)  | April, 2019     |

#### **Technical Skills and Hobbies**

- Programming Language: Java C, C++, Python
- Object Oriented Programming
- Data Structure and Algorithm
- DBMS

- Video Games
- Hackathons and Competitive Coding
- UI designing

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Neural Network and CNN