



Harsh Sinha

Roll Number: 150108014

B.Tech -Electronics and Electrical Engg.
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Education

Year	Degree / Certificate	Institute / Board	CGPA/Percentage
2015 - 2019	B.Tech	Indian Institute of Technology, Guwahati	7.8 (Current)
2015	Senior secondary	CBSE board	92.6%
2013	Secondary	CBSE board	10.0

Experience

- **Machine Learning Intern at Samsung R&D Institute, Noida.**
 - Got used to the various technologies like **NLP, android, and RNN** for the project assigned. *May 2018-July 2018*
 - Created a **Deep Learning model** which outperforms various previous models.
 - Delivered the final product as an app which **recommends emojis and GIFs** to a user based on text written which will be integrated to Samsung Keyboard and will decrease the task of searching for emojis every time we chat.
- **Research Intern at Indian Statistical Institute**
 - Research task to convert single label learning model to **multi-label models** *May 2017-July 2017*
 - Implemented **Multi-label KNN** from scratch in python.
 - Finally converted **Extreme Learning Machine** to a new model to work for multi-label Data
Prof Ashish Ghosh

Projects

- **Asymmetric Homomorphic encryption (Btech Term Project).** *Ongoing*
Working on a Project which is an instantiation of **Polycracker cryptography** and **Learning with Errors**.
Creating a new encrypting-decrypting algorithm using **Linear Algebra** concepts
Dr S. Krishnaswami, Assistant Professor, Dept EEE
- **ChatBot for news article**
Demonstrated a **terminal bot** made in python which interacts with the user and gives user *Mypolly Botahan*
news links and summary of various categories of news via chats *github.com/harsh4723/chatbot*
(<https://github.com/harsh4723/chatbot>)
- **Emotion Detection from speech**
Machine Learning model to Classify speech input into emotions like happy, sad, neutral, anger *EE320 course project*
and guilt. The model also performed good on self-made recordings after removing noise *Prof Prithwiji Guha*
- **Pattern Reconntion and Machine Learning**
Optical recognition of handwritten dataset using self coded and tuned naïve Bayes Classifier *EE657*
Decision tree implementation and visualization in Jupyter Notebook on Wisconsin Breast cancer data *(Course project)*
- **Smart Cart**
Made a working model of a **Smart Shopping Cart** which can be controlled by our *EE 304 Lab Project*
mobile phones, the cart contains RFID Reader and Arduino which sends items details *Jan-April 2018*
details to our phone and then sum the total bill. *Prof Chitralakha Mahanta*
- **FT Mini Corsair**
Made an RC plane from scratch which can move in all direction and won 2nd prize in *Inter Hostel Technical event*
the competition which judges design and flying capabilities of the plane.

Technical skills

- **Programming languages** : C,C++, Python, Java *
- **Web technologies** : HTML, CSS, PHP*
- **Miscellaneous** : Matlab, Data Science, ML & DL, TensorFlow, MySQL*
- **Operating system** : Windows

* Elementary proficiency

Positions of Responsibility

- **Mess Convenor** Dihing Hostel (Managed the hostel mess and kitchen for one year) *July 2017- April 2018*
 - **City representative** of Technothon in Ranchi: Managed the Technothon examination and brought 600 student's participation from various schools *May-July 2016*
 - **Event Organizer** of Parliamentary Debate at Alcheringa (Cultural Fest)
 - Branch **Hostel Representative** *July 2015-April 2016*
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Achievements

- **Joint Entrance Examination 2015:** Secured all India rank 1902 (top 0.01 percentile)
 - **Techniche 2016:** Obtained 1st prize in cantilever design
 - **Inter Hostel technical event:** Secured 2nd in RC plane making module (Team event)
 - **AISSCE 12th:** Certified for scoring full marks in Chemistry.
 - **SA course:** 1st in Table Tennis competition intra IIT (team of 5)
 - **Publicis Sapient Hackathon:** Got selected for the technology Conference of Publicis Sapient (fully funded) in Bangalore (25-26 August 2018)
 - **Inter Hostel BasketBall event:** Overall 3rd position (Bronze Medal)
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Key courses taken

- CS 101 Introduction to computing and lab
 - MA 101 Linear Algebra
 - EE221 Probability and Random Processes
 - Intro to Finance (EDX)
 - Maths for finance(UCI opencourse)
 - EE657 Pattern Recognition and ML
 - EE350 Control Systems
 - EE351 Advanced Control System
 - Winter JAVA course in Aptech Computer Edu.
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Extracurriculars

- **Industrial Conclave:** Participated in a workshop conducted by Techniche.
- **Japanese Language Course:** Elementary Proficiency in Japanese *Jan-May 2017*
- **Valco Innovation Challenge:** Certified for successfully submitting an innovative idea.
- **Inter Hostel Sports:** Played Khokho and BasketBall (3rd position) from the hostel.
- **Inter Hostel Cultural:** Part of Sketching Module.
- **Inter Hostel Technical:** Part of aeromodelling Module (2nd Position).
- **Hackathons:** Successful submissions in Microsoft's CodeFundo and MyPolly Botahon
- **Pariksha.com:** Current Rank under 1000 among 100,000 (Quantative aptitude, LRDI and Verbal)
- **Quant-Quests-** Enthusiastically participated in various finance data Science Challenges