



Mohit Kumar

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B.Tech - Computer Science and Engineering

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	8.65 (Current)	2021-Present
Senior Secondary	CBSE Board	95.6%	2021
Secondary	CBSE Board	97.2%	2019

EXPERIENCE

- MITACS Globalink Research Intern - Dalhousie University, Canada** May 2023 - Jul. 2023
Research Intern under Prof. Ahmed-Al Mallahi Nova Scotia, Canada
– Developed a Mask R-CNN Architecture based algorithm developed by Facebook AI Research for segmenting tubers.
– Wrote python script using OpenCV (CV2) library to get image by frame-grabber.
– To prevent defects from occlusion and motion blur, a separate Machine Learning model was devised for sampling using RandomForestClassifier(). Deep Learning frameworks like PyTorch and TensorFlow were used for devising features like concavity and solidity and 95% mIoU, 92% Recall and 94% Precision was observed by the model.
– The system improved old algorithm from 12s to 900ms and is used by McCain's Farms of Future(FoF), Canada.

PROJECTS

- Stock Predictor** Feb. 2023 - Mar. 2023
First Prize Winner in Inter Hostel Technical Competition Kriti Github
– Made a model that used current stock values to predict future ones using linear regression and stochastic LSTM
– Analysis was done using open, low, high of the current day's stock to predict the next day's close for 4 companies.
- Customer Propensity Modelling** Jun. 2023 - Jun. 2023
Self Project Github
– Made a propensity model that attempts to predict the likelihood that visitor to a website will buy an item or not.
– Used Naive Bayes Classifier for predicting today's propensity using yesterday's and features like button clicks.
- Car Price Estimator** Jul. 2023 - Jul. 2023
Self Project Github
– Used Random Forest Regressor to predict the price of an old car and RandomizedSearchCV for Cross-Validation.
– Successfully deployed the model using Python app and basic HTML and got MAE of 0.88 and MSE of 3.97.

KEY COURSES TAKEN

- Computer Science:** Data Structures and Algorithms, Computer Architecture and Organization, Database Management Systems, Formal Languages and Theory of Computation
- Mathematics:** Discrete Maths, Probability & Random Processes, Linear Algebra, Basic Calculus, Number Theory
- MOOC's:** Deep Learning Specialisation and Machine Learning Specialisation (by deeplearning.ai)

ACHIEVEMENTS

- Kriti - Inter Hostel Tech Meet,** Received Gold Medal in the Stock Predictor High Prep Event. 2023
- HDFC ECS Scholar,** Selected among the top 100 undergraduate students from India. 2023
- Shraman Foundation Scholar,** Selected among 10 undergraduate students from IIT. 2022
- All India Rank 1206,** Joint Entrance Examination Advanced 2020 among 0.25 million shortlisted candidates. 2022
- NTSE Scholar,** Selected among the top 1000 students from India. 2019

TECHNICAL SKILLS

- **Programming:** C/C++, Python
- **Operating Systems:** MacOS, Linux, Windows * Elementary proficiency

EXTRACURRICULARS

- **Finance and Analytics Quiz**, 1st position in Swaraj-75 Quiz organized by FEC IITG and CnA IITG.
- **National Chess Champion**, 4th position in India and 3rd position in Haryana State Chess Championship
- **State Quizzes**, Won State Rank 1 in GK Quiz, Science and Maths Quiz, and Road Safety Quiz

POSITIONS OF RESPONSIBILITY

- **Scrum Master**, AIES Group MITACS, Led team of interns for 3 Scrum Meetings. May. 2023 - Jul. 2023
- **Co-ordinator**, MMC Manas, IIT Guwahati Aug. 2022 - Apr. 2023