

Vaibhav Agrawal

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EDUCATION

NEW YORK UNIVERSITY

MS IN COMPUTER SCIENCE

Dec 2020 | New York, NY

GPA: 3.83 / 4

IIT KHARAGPUR

BACHELOR OF TECHNOLOGY

Aug 2019 | Kharagpur, India

Major in Civil and Minor in CS

Gold Medalist | GPA: 9.03 / 10

COURSEWORK

GRADUATE

Design and Analysis of Algorithms

Operating Systems

Database Systems

Cloud Computing

Information Visualization

Web Search Engines

Deep Learning

Java - Special Topics | Big Data

UNDERGRADUATE

Algorithms & Data Structures

Probability and Statistics

Switching Circuits and Logic Design

Computer Architecture & OS

Machine Learning

Artificial Intelligence

Natural Language Processing

SKILLS

Over 5000 lines

• C++ • Java • Python • C

Full Stack Tools

AWS • Android • JavaScript • Django

• React.js • Agile • Node.js • Selenium

Data Science

Statistics • MapReduce • Spark • Scala

• R • Kafka • Elastic Search • Kibana

Machine Learning & AI

Scikit-Learn • Pandas • SparkML

NLTK • Pytorch • Keras • Tensorflow

Database

• MySQL • MongoDB • DynamoDB

ACHIEVEMENTS

Holder of 2019 Anukul Chandra Sarkar

Memorial Gold Medal at IIT Kharagpur for

achieving **department rank 1**

Ranked 595 among 1 million in the 2012

International Mathematics Olympiad

EXPERIENCE

New York University | SOFTWARE DEVELOPER

October 2019 – Present | New York, NY

- Building API driven web app to manage a tutoring program in Django and React
- Developed a dedicated algorithm for matching students and tutors into individual and shared tutoring sessions

Salesforce | PRODUCT MANAGER INTERN

June 2020 – Aug 2020 | San Francisco, CA

- Building core release management tool on GUS to give users a seamless experience while being agile in their production cycle
- Working directly with customers to identify pain points and validate product roadmap while collaborating cross-functionally with engineering and UX teams

IISc Bangalore | RESEARCH INTERN (STATISTICS AND TESTING)

May 2018 – July 2018 | Bengaluru, IN

- Developed a dedicated algorithm to extract road links using Google Maps API
- Analyzed Google's traffic data to explore probability distributions of link-level traffic speed for efficient route choice making

IIT Bombay | APPLIED MACHINE LEARNING INTERN (NLP)

May 2017 – Oct 2017 | Mumbai, IN

- Designed an algorithm and improved the accuracy of word corrections up by 10% by introducing semantic language constraints of the Sanskrit grammar
- Further demonstrated different machine learning approaches like attention models and achieved the best F-score of 93.72 with LSTM
- Also developed an Android App using fragments layout to help users learn Sanskrit language with a built in text to speech component

PROJECTS

Twitter Bot Detection | BIG DATA

Spring 2020 | New York, NY

Built a machine learning model to identify Twitter bots that spread political propaganda on big data scale (accuracy of 91%) using SparkML, MongoDB and Kafka

AWS Projects | CLOUD COMPUTING

Spring 2020 | New York, NY

Built server-less web apps on AWS for smart door authentication, email spam filtering and NLP powered photo search using AWS Lex, Kinesis, Rekognition and Sagemaker

Crash Severity Analysis | BACHELOR'S THESIS (DATA MINING)

July 2018 – April 2019 | Kharagpur, IN

Analyzed traffic data on vehicular crashes using several non-parametric machine learning algorithms and achieved the best accuracy of 90% with XGBoost

Stance Detection from Tweets | NATURAL LANGUAGE PROCESSING

Fall 2019 | Kharagpur, IN

Identified different stances adopted by the people on cancer from an extensive collection of tweets using Tf-Idf vectors and deep learning algorithms such as LSTM

PUBLICATIONS

[1] V. Agrawal et al. Crash severity analysis through nonparametric machine learning methods. *Journal of the Eastern Asia Society for Transportation Studies*, (2019).

[2] D. Adiga, R. Saluja, V. Agrawal, and et al. Improving the learnability of classifiers for sanskrit ocr corrections. *17th World Sanskrit Conference, Vancouver, IASS*, (2018).