

Vaibhav Agrawal

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EDUCATION

NEW YORK UNIVERSITY
MS IN COMPUTER SCIENCE
Dec 2020 | New York, NY
GPA: 3.85 / 4

IIT KHARAGPUR
BACHELOR OF TECHNOLOGY
Aug 2019 | Kharagpur, India
Gold Medalist | GPA: 9.03 / 10

COURSEWORK

GRADUATE

Design and Analysis of Algorithms
Operating Systems
Computer Networks
Database Systems
Application Security
Deep Learning
Java - Special Topics
Big Data | Cloud Computing

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

• Go • Python • C++ • Java • C

Full Stack Tools

• AWS • GraphQL • gRPC • REST
• Docker • Django • React.js • Android

Database

• DynamoDB • SQL • MongoDB

Machine Learning & AI

• Scikit-Learn • Pandas • SparkML
NLTK • Pytorch • Keras • Tensorflow

Data Science & Big Data

• Statistics • MapReduce • Spark • Scala
• R • Kafka • Elastic Search • Kibana

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

Twitch | SOFTWARE DEVELOPER ENGINEER

March 2021 – Present | San Francisco, CA

- On Commerce Money Team, Tech stack: Golang, Ruby on Rails, AWS

New York University | SOFTWARE DEVELOPER

October 2019 – Dec 2020 | New York, NY

- Built 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

- Built core release management tool on GUS to provide user a seamless experience while being agile in their production cycle
- Worked 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

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).