

# Vaibhav Agrawal

SOFTWARE ENGINEER · SAN FRANCISCO, CA

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## Work Experience

### Twitch (Amazon)

San Francisco, CA

SOFTWARE ENGINEER

Mar. 2021 - PRESENT

- Migrated legacy monolith Rails async jobs to Go based microservices using AWS Lambda, Eventbus, SQS and SNS
- Introduced component style table testing for critical payment paths and refactored the flow to builder design pattern in Go
- Identified and helped resolve a critical bug that was impacting more than 50k users every month

### FITL Center, New York University

New York, NY

SOFTWARE DEVELOPER

Oct. 2019 - Dec. 2020

- Built a REST-driven web application for a New York University tutoring program using Django, PostgreSQL and React
- Designed a dedicated algorithm to match students and tutors into individual and shared tutoring sessions

### Salesforce

San Francisco, CA (Remote)

PRODUCT MANAGER INTERN

June. 2020 - Aug. 2020

- Built a core release management tool on GUS to provide users a seamless agile experience in their production cycle
- Worked directly with end-use customers to identify existing pain points
- Validated product roadmap while collaborating cross-functionally with engineering and UX teams

## Education

### New York University

New York, NY

M.S. IN COMPUTER SCIENCE (GPA: 3.85/4)

Sept. 2019 - Dec. 2020

- Algorithms, Database Systems, Big Data, Cloud Computing, Application Security, Deep Learning, Computer Networking, OS, Advanced Java

### Indian Institute of Technology

Kharagpur, India

BACHELOR OF TECHNOLOGY (GPA: 9.03/10)

July. 2015 - Aug. 2019

- Holder of 2019 Anukul Chandra Sarkar Memorial Gold Medal for achieving highest GPA in the department
- Algorithms and Data Structures, Switching Circuits and Logic Design, Computer Architecture, Operating Systems, Parallel Programming, Probability and Statistics, Machine Learning, Artificial Intelligence, Natural Language Processing

## Skills

<b>Programming</b>	Go, Python, C++, Java
<b>Full Stack Tools</b>	AWS, Docker, Terraform, gRPC, GraphQL, Jenkins, Bash, REST, Django, React.js, Swift(iOS), Android
<b>Databases</b>	PostgreSQL, RDS, DynamoDB, MongoDB, MySQL
<b>Big Data &amp; ML</b>	MapReduce, Spark, Kafka, ElasticSearch, Kibana, Scikit-learn, Pandas, Pytorch, Tensorflow, NLTK, Scala, R

## Projects & Publications

### Designing Microservices on AWS

New York, NY

CLOUD COMPUTING, DEPARTMENT OF COMPUTER SCIENCE (NYU)

Spring. 2020

- Built server-less web apps for smart door authentication, email spam filtering and NLP powered photo search using various AWS tools

### Twitter Bot Detection

New York, NY

BIG DATA, DEPARTMENT OF COMPUTER SCIENCE (NYU)

Spring. 2020

- Built a big data ML model to identify Twitter bots spreading election propaganda with an accuracy of 91% using SparkML, MongoDB and Kafka

### Journal of the Eastern Asia Society for Transportation Studies (EASTS)

Japan

AUTHOR OF: "CRASH SEVERITY ANALYSIS THROUGH NONPARAMETRIC MACHINE LEARNING METHODS" (CITED BY 2)

Dec. 2019

- Explored three ML algorithms to identify critical factors affecting severity of accidents and achieved the best accuracy of 90% with XGBoost

### 17th World Sanskrit Conference (IASS)

Vancouver, Canada

AUTHOR OF: "IMPROVING THE LEARNABILITY OF CLASSIFIERS FOR SANSKRIT OCR CORRECTIONS" (CITED BY 5)

July. 2018

- Improve 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