

# Vaibhav Agrawal

SOFTWARE ENGINEER · MACHINE LEARNING · BLOCKCHAIN · SAN FRANCISCO, CA

✉ va8817@gmail.com | 🏠 [avaibh.github.io](#) | 📷 [avaibh](#) | 📺 [avaibh](#)

## Work Experience

### Twitch (Amazon)

San Francisco, CA

SOFTWARE ENGINEER II

Mar. 2021 - PRESENT

- Leading re-architecture and build of scalable and extensible payments platform that makes it easy to build and sell digital products
- Co-led the architecture and design of an in-house recurring billing engine that replaces subscription management vendors
- Led the design and migration of async payments flow from a legacy monolith service without any downtime
- Introduced regression and component testing in critical payment paths that perform tests at scale and thus reduce toil and induce trust
- Mentored a summer intern, coaching them through the design, planning and implementation of a product-facing project

### 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)

ASSOCIATE 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 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) | GOLD MEDALIST

July. 2015 - Aug. 2019

- Holder of 2019 [Anukul Chandra Sarkar Memorial Gold Medal](#) for achieving highest GPA in the department
- Algo & DS, Switching Circuits & Logic Design, Computer Architecture, OS, Parallel Programming, Probability & Statistics, ML, NLP, AI

## Skills

<b>Programming</b>	Golang, Python, Solidity, 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>ML &amp; Big Data</b>	MapReduce, Spark, Kafka, Elasticsearch, Kibana, Scikit-learn, Pandas, Pytorch, Tensorflow, NLTK, Scala, R
<b>Blockchain</b>	Ethereum, Hyperledger Fabric, Web3.js, Consensus, Cryptography, DApps Architecture, IPFS & Hashgraph

## 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 3)

Dec. 2019

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

### Computational Sanskrit & Digital Humanities (17<sup>th</sup> World Sanskrit Conference)

Vancouver, Canada

AUTHOR OF: "IMPROVING THE LEARNABILITY OF CLASSIFIERS FOR SANSKRIT OCR CORRECTIONS" (CITED BY 6)

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