Vaibhav **Agrawal**

SOFTWARE ENGINEER · MACHINE LEARNING · SAN FRANCISCO, CA

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Work Experience

Twitch (Amazon) *San Francisco, CA*

SOFTWARE ENGINEER II *Mar. 2021 - PRESENT*

- Leading re-architecture and build of a 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

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 *New York, NY*

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

Programming	Golang, Python, C++, Java
Full Stack Tools	AWS, Docker, Terraform, gRPC, GraphQL, Jenkins, Bash, REST, Django, React.js, Swift(iOS), Android
Databases	PostgreSQL, RDS, DynamoDB, MongoDB, MySQL
ML & Big Data	MapReduce, Spark, Kafka, ElasticSearch, Kibana, Scikit-learn, Pandas, Pytorch, Tensorflow, NLTK, Scala, R
Blockchain	Solidity, Ethereum, 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 5) *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 (17th 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